A GUIDE TO PLANNING, ACQUIRING, AND MANAGING INFORMATION TECHNOLOGY SYSTEMS

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FOREWORD

Over the last several years, innovators in Congress and the Office of Management and Budget, with the support of executive branch agencies, have reformed the laws and policies that govern Federal acquisition and information resources management. These reforms began with passage of the Government Performance and Results Act which requires strategic and annual program performance plans; were expanded through the Federal Acquisition Streamlining Act of 1994 to require cost, schedule, and performance goals for each acquisition; and culminated with the Information Technology Management Reform Act of 1996 (redesignated the Clinger-Cohen Act) which emphasizes capital planning and investment.

The effects of these reforms are far-reaching. They stretch beyond what has traditionally been called acquisition to include such key management functions as program planning, budgeting, and setting and achieving program goals. As a result, there is a new and exciting business focus on acquisition that places an important emphasis on performance. Acquisition is now viewed not just as contracting, but as an investment toward the advancement of an agency's mission and programs.

Much of the implementation of these reforms is being spearheaded by agency Chief Information Officers (CIOs). Under their direction, agency staff are establishing innovative new processes that link acquisition to program performance goals under the Government Performance and Results Act, and they are developing new investment portfolio management processes.

Because of this program-based and investment-based thrust of acquisition, many more types of people play a role in acquisition teams today. In addition to technical and contracting staff, for example, are those from the program and financial offices. These people add fresh perspective, insight, energy, and innovation to the process—but they may lack some of the rich background and experience that acquisition often requires.

GSA's Office of Information Technology, with assistance from SIGNAL Corporation and Acquisition Solutions, Inc. (ASI), developed this document, A Guide to Planning, Acquiring, and Managing Information Technology Systems, to support those involved in acquisitions and to further the objectives of agency CIOs.

We welcome comments and suggestions about this guide, which may be directed to: U.S. General Services Administration, Emerging IT Policies Division, Attn: Richard N. Kellett, Room 2218, 1800 F Street NW, Washington, DC 20405. Additional information about Federal information technology acquisition is available on the GSA IT Policy OnRamp located at: http://www.itpolicy.gsa.gov.

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GSA also gratefully acknowledges the following individuals who assisted in the review of this guide: Ms. Diana Maykowskyj, Defense Logistics Agency; Mr. Stan March, United States Social Security Administration; Mr. Walter Cate, United States Department of State; and Mr. Carl Peckinpaugh, Winston and Strawn law firm. GSA also thanks the Federal Systems Integration and Management Center (FEDSIM), who provided program management and contracting assistance in developing the series.

GSA's Office of Emerging IT Policies (MKE) identifies, addresses, and develops emerging business, management, legal, and technology issues. MKE disseminates timely and useful IT policies, guidance such as this guide, and best practices to federal agencies. For more information about the Emerging IT Policies division, please contact Mr. Richard Kellett at (202) 501-1650, e-mail richard.kellett@gsa.gov, or Mr. David Middledorf at (202) 501-1551, e-mail dave.middledorf@gsa.gov.

Federal Systems Integration and Management Center (FEDSIM) is a part of GSA's Federal Technology Service and provides information technology client services on a fee-for-service basis. For more information on FEDSIM's capabilities, please contact Ms. Martha Banks, Program Manager, at (703) 756-4234 or by email at Martha.Banks@gsa.gov.

SIGNAL Corporation is a leading high-technology services company, providing Information Technology, Engineering & Management, and Multimedia Services in industry and government. For more information on SIGNAL's capabilities, please contact Mr. Wayne Self, Vice President, at (703)205-2461 or by email at wayne_self@signalcorp.com or view SIGNAL's website at www.signalcorp.com.

Acquisition Solutions, Inc (ASI) is a small business dedicated to assisting government agencies in understanding and implementing acquisition reform and best practices. For information on this guide, or on ASI corporate capabilities, contact Ms. Ann Costello, Director of Publications Services, or Mr. Chip Mather, Senior Vice President respectively, at (703) 378-3226, or by email at ann.costello@acqsolinc.com, or chip.mather@acqsolinc.com.

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EXECUTIVE SUMMARY

Agencies buy information technology resources (computers and related products and services) to solve mission-critical problems. Those with the need want the right product or service delivered, on time, at a fair price—and they want it to do what it was intended to do. It's a simple concept, but not a simple process.

Acquisition involves many tasks, which may apply (in varying degrees) depending on the size, type, complexity, cost, and criticality of the resources being bought. It is important to be aware of these steps and apply them appropriately to the planned acquisition. Doing so will help meet the need with technology, while avoiding the time, cost, and functionality risks associated with every procurement. (Chapter 1 introduces this guide and the acquisition process.)

While the information technology acquisition process is primarily based on laws, policies, and regulations, reforms implemented over the last several years have encouraged the application of individual initiative, business process innovations, and common sense. Policies and regulations are established to some degree by each agency and to a large degree by agencies with Governmentwide responsibility. Being aware of the rules and organizations that affect information technology acquisition helps in understanding why the processes are important. Furthermore, the larger the acquisition, the more likely that people outside the procuring agency will become involved. In such cases, being aware of their roles and responsibilities helps ensure that the acquisition proceeds efficiently. (Chapter 2 addresses the laws, policies, regulations, and the people and organizations who are involved in or oversee Federal acquisitions.)

The remainder of this guide addresses the steps in the acquisition life-cycle process, from planning for, to disposing of, the information technology resources. These steps are as follows:

- Mission and Business Planning (Chapter 3)
- Acquisition Planning (Chapter 4)
- Acquisition (Chapter 5)
- Contract Performance (Chapter 6)
- Disposal and Contract Closeout (Chapter 7)

Business planning is addressed independently of acquisition planning, because this area has been dramatically affected by recent statutory reforms—notably the Government Performance and Results Act (GPRA), the Federal Acquisition Streamlining Act (FASA), and the Information Technology Management Reform Act (ITMRA). This differentiation helps to focus on the steps involved in deciding what is needed (mission and business planning), before beginning the steps involved in how to get it (acquisition planning). A focus on business planning is very important because it disciplines the decisions involved in defining the problem and the intended result. These decisions are the basis for deciding whether an acquisition will be funded—in other words, there may

be no acquisition if the business and programmatic reasons are not clear and compelling. The reality of today's budget process is that projects and acquisitions compete against each other for funding, first in the agency, and then at the OMB and Congress. So, this guide places a special emphasis on planning for an acquisition.

This guide also reflects the current acquisition environment. Today, there are many alternatives to the negotiated procurement process (which involves issuing a solicitation, requesting and evaluating proposals, and making awards). These alternatives include, for example, micro-purchases, simplified acquisition procedures, orders for products or services from Federal Supply Schedule (FSS) contracts or Governmentwide agency contracts (GWACs), and blanket purchase agreements (BPAs) against FSS contracts—in addition to the more traditional Invitation for Bids (IFB) and Request for Proposals (RFP) processes. This guide's approach is to discuss the range of contracting and ordering options that agencies now possess.

Also of vital importance in acquisition today is the post-award performance phase of acquisition, which can be summed up in four words: performance, measurement, teamwork, and management. The focus of acquisition, up until award, is on establishing the required performance improvements (business planning), determining the means of obtaining contractor support in meeting performance goals (acquisition planning), and conducting the procurement to select the contractor best qualified at a reasonable cost to make those improvements (acquisition). With award, the acquisition moves into the performance phase, where the Government and contractor cooperate to perform, measure, manage, and achieve the desired improvements.

Ultimately, acquisition is a series of decisions that cannot be reduced to a cut-and-dried checklist. Acquisition professionals must apply judgment in taking the steps necessary to acquire information technology resources that deliver the desired results. This guide is intended to help with that process.

A GUIDE TO PLANNING, ACQUIRING, AND MANAGING INFORMATION TECHNOLOGY SYSTEMS

TABLE OF CONTENTS

| | | | | | Page |
|------------|-----|-------|----------|---|------|
| CHAPTER 1. | INT | RODU | CTION | | 1-1 |
| | 1.1 | PURP | OSE OF | GUIDE | 1-1 |
| | 1.2 | | | EFORM ON ACQUISITION | |
| | 1.3 | | | F THIS GUIDE AND THE ACQUISITION | |
| | | | | | 1-3 |
| | | | | and Business Planning | |
| | | 1.3.2 | | tion Planning | |
| | | 1.3.3 | | tion | |
| | | 1.3.4 | Contrac | t Performance | 1-5 |
| | | 1.3.5 | Disposa | l and Contract Closeout | 1-5 |
| | 1.4 | ITER/ | ATIVE, N | NOT LINEAR, PROCESS | 1-5 |
| | 1.5 | | | SITION GUIDE SERIES | |
| CHAPTER 2. | OVE | ERVIE | W | | 2-1 |
| | 2.1 | ACOI | JISITION | N'S FRAMEWORK OF LAW, RULES, AND | |
| | | _ | | | 2-1 |
| | | | | ion | |
| | | | _ | Clinger-Cohen Act | |
| | | | | Paperwork Reduction Act of 1995 (P.L. 104-13) | |
| | | | | Federal Acquisition Streamlining Act of 1994 | |
| | | | | (P.L. 103-355) | 2-4 |
| | | | 2.1.1.4 | Government Performance and Results Act of 1993 | |
| | | | | (P.L. 103-62) | 2-5 |
| | | | 2.1.1.5 | Competition in Contracting Act (P.L. 98-369) | |
| | | | 2.1.1.6 | Office of Federal Procurement Policy Act | |
| | | | | (P.L. 93-400, as amended) (41 U.S.C. §401 et seq.). | 2-5 |
| | | | 2.1.1.7 | Other Laws | 2-7 |
| | | 2.1.2 | Policy a | nd Regulation | 2-8 |
| | | | • | Executive Orders | |
| | | | 2.1.2.2 | Office of Management and Budget Circulars | 2-10 |
| | | | 2.1.2.3 | Office of Federal Procurement Policy (OFPP) | |
| | | | | Policy Letters | 2-12 |
| | | | 2.1.2.4 | Raines' Rules | 2-13 |
| | | | 2.1.2.5 | Federal Acquisition Regulation (FAR) | 2-13 |

| | | 2.1.2.6 Federal Property Management Regulation | |
|-----|--------|--|------|
| | | (41 CFR Chapter 101) | |
| | | 2.1.2.7 Agency Supplemental Regulations | 2-17 |
| 2.2 | PUBL: | IC POLICY OBJECTIVES THAT AFFECT ACQUISITION . | 2-17 |
| | 2.2.1 | Capital Planning and Budgeting | |
| | 2.2.2 | Investment Criteria | |
| | 2.2.3 | Return on Investment | 2-18 |
| | 2.2.4 | Risk Assessment and Management | 2-18 |
| | 2.2.5 | Re-engineering | 2-18 |
| | 2.2.6 | Performance Measurement | |
| | 2.2.7 | Past Performance | 2-18 |
| | 2.2.8 | Full and Open and Efficient Competition | 2-19 |
| | | Performance-Based Contracting | |
| | | Modular Contracting | |
| | 2.2.11 | Coherent Agency Architecture | 2-20 |
| | | Communications with the Private Sector | |
| | 2.2.13 | Small Business and Socio-Economic Programs | 2-21 |
| | | Accessibility | |
| 2.3 | | RNMENTWIDE ROLES, RESPONSIBILITIES, AND | |
| | | ORITIES | 2-22 |
| | 2.3.1 | Office of Management and Budget | 2-22 |
| | 2.3.2 | Office of Federal Procurement Policy | |
| | 2.3.3 | General Services Administration | |
| | 2.3.4 | National Institute of Standards and Technology | 2-22 |
| | 2.3.5 | Chief Information Officers Council | |
| | 2.3.6 | Government Information Technology Services Board | |
| | 2.3.7 | Information Technology Resources Board | |
| | 2.3.8 | Trail Boss Program | |
| | 2.3.9 | General Accounting Office | |
| | 2.3.10 | Agency Protest and Dispute Forums | |
| | | District Courts and Court of Federal Claims | |
| | 2.3.12 | Alternative Dispute Resolution Forums | 2-24 |
| 2.4 | | CY ROLES, RESPONSIBILITIES, AND AUTHORITIES | |
| | 2.4.1 | Chief Information Officer | |
| | 2.4.2 | Agency Investment Review Board | 2-25 |
| | 2.4.3 | Program Manager | |
| | 2.4.4 | Acquisition Team | |
| | 2.4.5 | Information Technology/Information Resource Management | |
| | | Personnel | 2-26 |
| | 2.4.6 | Senior Procurement Executive | |
| | 2.4.7 | Contracting Officer | |
| | 2.4.8 | Administrative Contracting Officer | |
| | 2.4.9 | Contracting Officer's Technical Representative | |
| | | Source Selection Authority | 2-29 |

| | | 2.4.11 | Source Selection Evaluation Board | 2-29 |
|------------|-----|--------|--|------|
| | | | 2.4.11.1 Technical Evaluation Panel | 2-29 |
| | | | 2.4.11.2 Cost Evaluation Panel | 2-29 |
| | | 2.4.12 | Source Selection Advisory Council | 2-29 |
| | | | Competition Advocate | |
| CHAPTER 3. | MIS | SION A | AND BUSINESS PLANNING | 3-1 |
| | 3.1 | PURP | OSE OF CHAPTER | 3-1 |
| | 3.2 | | RVIEW OF CHAPTER | |
| | 3.3 | | EIVING A NEED | |
| | 3.4 | | ING THE NEED TO MISSION AND PERFORMANCE | |
| | | OBJE | CTIVES | 3-2 |
| | | 3.4.1 | Identifying Performance Objectives | 3-2 |
| | | | Ensuring Measurability and Developing a | |
| | | | Measurement Strategy | 3-3 |
| | | 3.4.3 | Establishing the Baseline | 3-5 |
| | | 3.4.4 | Identifying the Performance Gap and Forming the | |
| | | | Acquisition Team | 3-5 |
| | 3.5 | ASSE | SSING ALTERNATIVES TO CAPITAL ASSETS | |
| | | 3.5.1 | Determining if the Function Needs to Be Performed by the | |
| | | | Federal Government | |
| | | 3.5.2 | Determining Who Should Perform the Function | |
| | | | Reengineering | |
| | 3.6 | | ARING FOR INVESTMENT REVIEW AND BUDGETING. | |
| | | 3.6.1 | Preparing for the Agency Investment Review Board | |
| | | | Understanding Capital Planning Requirements | |
| | 3.7 | CONC | CLUSION | 3-11 |
| CHAPTER 4. | AC(| QUISIT | TION PLANNING | 4-1 |
| | 4.1 | | OSE OF CHAPTER | |
| | 4.2 | OVEF | RVIEW OF CHAPTER | 4-1 |
| | 4.3 | FUNC | CTIONAL STATEMENT OF NEED | 4-2 |
| | 4.4 | MAR | KET RESEARCH | |
| | | 4.4.1 | Purpose | 4-4 |
| | | 4.4.2 | Scope | |
| | | 4.4.3 | Sources of Information | |
| | | 4.4.4 | Establishing Feasibility | |
| | | 4.4.5 | Using the Information | |
| | 4.5 | REQU | JIREMENTS ANALYSIS | 4-6 |
| | | 4.5.1 | Purpose | 4-6 |
| | | 4.5.2 | Policy | 4-7 |
| | | 4.5.3 | Order of Precedence and Performance-Based | |
| | | | Requirements Documents | |
| | | 4.5.4 | Size, Scope, and Documentation | 4-7 |
| | | 4.5.5 | System Life | 4-7 |

| | | 4.5.6 | Analysis of Requirements | 4-8 |
|------------|------|--------|--|------|
| | | | 4.5.6.1 Current Resources | 4-8 |
| | | | 4.5.6.2 Needed Resources | 4-8 |
| | | | 4.5.6.3 Projected Effect of Requirements on Competition | 4-9 |
| | | 4.5.7 | Statement of Requirements | 4-10 |
| | 4.6 | ALTE | RNATIVES ANALYSIS | 4-10 |
| | | 4.6.1 | Constraints and Assumptions | 4-11 |
| | | 4.6.2 | Analyzing Alternatives | 4-12 |
| | | 4.6.3 | Assessing Risk and Effect | 4-12 |
| | | 4.6.4 | Ranking Alternatives | 4-13 |
| | 4.7 | BENE | FIT-COST ANALYSIS | 4-13 |
| | | 4.7.1 | Cost the Status Quo | 4-14 |
| | | 4.7.2 | Cost Alternatives to the Status Quo | |
| | | 4.7.3 | Identify Benefits (Quantifiable and Qualitative) | 4-15 |
| | | 4.7.4 | Quantify and Project Benefits | 4-15 |
| | | 4.7.5 | Perform Benefit-Cost Analysis | 4-15 |
| | | | 4.7.5.1 Present-Value Discounting | 4-15 |
| | | | 4.7.5.2 Return-on-Investment Indicators | 4-16 |
| | | | 4.7.5.3 Select Most Beneficial Alternative | 4-18 |
| | | | 4.7.5.4 Conduct a Sensitivity Analysis | 4-19 |
| | 4.8 | INDE | PENDENT GOVERNMENT COST ESTIMATE | 4-19 |
| | 4.9 | RISK | MANAGEMENT PLAN | 4-19 |
| | 4.10 | ACQU | JISITION PLAN | 4-20 |
| | | 4.10.1 | Purpose | 4-21 |
| | | 4.10.2 | Contents of Written Acquisition Plans | 4-21 |
| | | | 4.10.2.1 Acquisition Background and Objectives | 4-21 |
| | | | 4.10.2.2 Plan of Action | 4-22 |
| | 4.11 | | EMENTATION PLAN | |
| | 4.12 | CONC | CLUSION | 4-26 |
| CHAPTER 5. | ACC | UISIT | ION | 5-1 |
| | 5.1 | | OSE OF CHAPTER | |
| | 5.2 | | VIEW OF CHAPTER | |
| | 5.3 | | JISITION ALTERNATIVES | |
| | 0.0 | 5.3.1 | Required Sources | |
| | | 5.3.2 | Existing Contracts | |
| | | 0.0.2 | 5.3.2.1 Governmentwide Agency Contracts and | |
| | | | Multiagency Contracts | 5-4 |
| | | | 5.3.2.2 Agency-Mandated Contracts or Sources | |
| | | 5.3.3 | Open Market | |
| | | 2.2.2 | 5.3.3.1 Micro-Purchase | |
| | | | 5.3.3.2 Simplified Acquisition Procedures | |
| | | | 5.3.3.3 Commercial Item Acquisition | |
| | | | 5.3.3.4 Special Test Program for Simplified Acquisitions | 0 7 |
| | | | for Certain Commercial Items | 5-8 |
| | | | | |

| | | 5.3.3.5 | Sealed Bidding | 5-8 |
|------------|----------|----------|--|------|
| | | 5.3.3.6 | Two-Step Sealed Bidding | 5-9 |
| | | 5.3.3.7 | Contracting by Negotiation | 5-9 |
| 5.4 | REQU | JIREME | NTS FOR COMPETITION | 5-11 |
| | 5.4.1 | CICA C | Competitive Requirements | 5-11 |
| | | 5.4.1.1 | Full and Open Competition | 5-11 |
| | | 5.4.1.2 | Full and Open Competition after Exclusion | |
| | | | of Sources | 5-11 |
| | | 5.4.1.3 | Other than Full and Open Competition | 5-12 |
| | 5.4.2 | Excepti | ons and Other Competitive Requirements | 5-12 |
| | | 5.4.2.1 | Competition Under Federal Supply Schedule | |
| | | | Contracts | 5-13 |
| | | 5.4.2.2 | Competition Under Task and Delivery Order | |
| | | | Contracts | 5-13 |
| | | 5.4.2.3 | Competition Under Micro-Purchase Procedures | 5-14 |
| | | 5.4.2.4 | Competition Under Simplified Acquisition | |
| | | | Procedures | 5-14 |
| | | 5.4.2.5 | Competition Under the Special Test Program for | |
| | | | Simplified Acquisitions for Certain Commercial | |
| | | | Items | 5-15 |
| 5.5 | | | REQUIREMENTS | |
| 5.6 | SOUR | | ECTION | |
| | 5.6.1 | | or Source Selection | |
| | | | Lowest Price, Technically Acceptable Offer | |
| | | | Best Value | |
| | 5.6.2 | | Selection in Sealed Bidding | |
| | 5.6.3 | | Selection in Negotiated Procurements | |
| | | | Responsibilities and Organization | |
| | | | Overview of Source Selection Process | |
| | | 5.6.3.3 | New FAR Part 15 Source Selection Techniques | |
| 5.7 | | | FOR A WIN-WIN CONTRACT | |
| | 5.7.1 | | re Contractor Performance Measures | |
| | 5.7.2 | | k between Contractor Performance and | |
| | | | Performance | |
| | 5.7.3 | | nance-Based Contracting | |
| | 5.7.4 | | on of Contract Type | |
| | 5.7.5 | | ypes of Contracts Used in IT Acquisitions | |
| | | | Indefinite-Delivery, Indefinite-Quantity Contracts | |
| | | 5.7.5.2 | | |
| | | | Labor-Hour contract | |
| | 5.7.6 | | ves and Other Techniques | |
| | | | Modular Contracting | |
| - ^ | 903- | | Use of Pilots and Prototypes | |
| 5 8 | ('(')N/(| MOIZH IT | N | 5-30 |

| CHAPTER 6. | CON | TRACT PERFORMANCE | 6-1 |
|------------|------------|--|------|
| | 6.1 | PURPOSE OF CHAPTER | |
| | 6.2 | OVERVIEW OF CHAPTER | |
| | 6.3 | ROLES AND RESPONSIBILITIES | |
| | | 6.3.1 Program or Project Manager | |
| | | 6.3.2 Contracting Officer | |
| | | 6.3.3 Administrative Contracting Officer | |
| | | 6.3.4 Contracting Officer's Technical Representative | |
| | | 6.3.5 Program Users | |
| | | 6.3.6 Contractor | |
| | 6.4 | PROJECT INITIATION | |
| | 6.5 | COMMUNICATIONS AND RELATIONSHIPS | |
| | 6.6 | PERFORMANCE MEASUREMENT | |
| | | 6.6.1 Understanding the Performance Reporting Requirements | |
| | | 6.6.2 Measuring Contractor Performance | |
| | | 6.6.3 Developing the Past-Performance Report | |
| | | 6.6.4 Offering the Contractor an Opportunity to Comment | |
| | 6.7 | INSPECTION AND ACCEPTANCE | |
| | 6.8 | CHANGES TO CONTRACTS | |
| | | 6.8.1 Contract Options | |
| | <i>(</i> 0 | 6.8.2 Technology Refreshment | |
| | 6.9 | PERFORMANCE FAILURE BUSINESS PLANNING INITIATION | |
| | | CONCLUSION | |
| | 0.11 | CONCLUSION | 0-11 |
| CHAPTER 7. | DISE | POSAL AND CONTRACT CLOSEOUT | 7-1 |
| | 7.1 | PURPOSE OF CHAPTER | 7-1 |
| | 7.2 | APPROPRIATENESS OF DISPOSAL | 7-1 |
| | 7.3 | EXCHANGE/SALE | 7-1 |
| | 7.4 | INTERNAL AGENCY SCREENING | 7-2 |
| | 7.5 | TRANSFER AND DONATION | 7-2 |
| | 7.6 | CONTRACT CLOSEOUT | 7-2 |
| | 7.7 | CONCLUSION | 7-3 |
| | | | |

APPENDIX A—DEFINITIONS

LIST OF EXHIBITS

| Exhibit | | Page |
|---------|---|------|
| 1-1 | Pre-Reform (Brooks Act) Era | 1-2 |
| 1-2 | Post-Reform Era | 1-2 |
| 1-3 | GSA's Approach to Acquisition Guides | 1-6 |
| 2-1 | Legislative Framework | 2-1 |
| 2-2 | Other Acquisition-Related Laws Applying to Information Technology | 2-7 |
| 2-3 | Raines' Rules | 2-14 |
| 2-4 | Statement of Guiding Principles for the Federal Acquisition System | 2-15 |
| 2-5 | FAR 1.102-2—Performance Standards | 2-16 |
| 2-7 | Source Selection Organization Structure | 2-30 |
| 3-1 | The Linkage of Statutory Performance Mandates | 3-1 |
| 3-2 | Decision Tree for Analyzing Agency Programs and Investments | |
| 3-3 | Relationship of Mission and Work Processes to Information Technology | 3-7 |
| 3-4 | Example of Criteria and Scoring Process to Rank Proposed Capital Assets | 3-10 |
| 3-5 | The Budget Phase | 3-11 |
| 4-1 | Iterative Market Research Activities | 4-3 |
| 4-2 | Federal Return on Investment | 4-17 |
| 4-3 | Sample Cost/Benefit Break-Even Chart | 4-18 |
| 5-1 | Acquisition Alternatives | 5-2 |
| 5-2 | Software Development Metrics | 5-22 |
| 5-3 | Performance Planning and Performance-Based Acquisition | 5-24 |
| 5-4 | Types of Contracts | 5-27 |
| 6-1 | Multi-Tiered, Hierarchical Performance Structure | 6-5 |
| 6-2 | Example: Performance Structure | 6-6 |
| | | |

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LIST OF ACRONYMS

ACO Administrative Contracting Officer
ADR Alternative Dispute Resolution
APR Agency Procurement Request
BPA Blanket Purchase Agreement
CAO Contract Administration Office

CEP Cost Evaluation Panel

CFR Code of Federal Regulations
CICA Competition in Contracting Act
CIO Chief Information Officer

CO Contracting Officer

COTR Contracting Officer's Technical Representative

D&F Determination and finding

DPA Delegation of Procurement Authority

EO Executive Order

FAR Federal Acquisition Regulation

FARA Federal Acquisition Reform Act of 1996, now redesignated as the Clinger-

Cohen Act

FASA Federal Acquisition Streamlining Act of 1994

FIPS PUBS Federal Information Processing Standards Publications

FMSS Financial Management Systems Software **FPMR** Federal Property Management Regulation

FSS Contract Federal Supply Schedule Contract

GAO General Accounting Office

GITSB Government Information Technology Services Board

GPRA Government Performance and Results Act

GSA General Services Administration

GSBCA General Services Board of Contract Appeals

GWAC Governmentwide Agency Contract **IDIQ** Indefinite-delivery, indefinite-quantity

IFB Invitation for Bids

IGCE Independent Government Cost Estimate

IT Information Technology

ITMRA Information Technology Management Reform Act of 1996, now redesig-

nated as the Clinger-Cohen Act

ITRB Information Technology Resources Board

J&A Justification and approval

NIST National Institute of Standards and Technology

OFPP Office of Federal Procurement Policy
OMB Office of Management and Budget

P.L. Public Law

PWS Performance Work Statement
QAP Quality Assurance Plan

SDB Small Disadvantaged Business
SIC Standard Industrial Classification

SSA Source Selection Authority

SSAC Source Selection Advisory Council
SSEB Source Selection Evaluation Board

T&M Time and materials

TEP Technical Evaluation Panel

U.S.C. United States Code

CHAPTER 1. INTRODUCTION

Agencies buy information technology resources to solve mission-critical problems. They want the right product or service delivered on time at a fair price—and they want it to do what it was intended to do. It's a simple concept, but not a simple process, and it has become even more challenging in recent years due to the changes brought about by acquisition reform.

The foundation for these changes was laid by innovators in Congress and the Administration who reformed the laws and policies that govern Federal acquisition and information resources management. The effects of these reforms are far-reaching. They stretch beyond what has traditionally been called acquisition to include such key management functions as program planning, budgeting, and setting and achieving program goals. As a result, there is a new and exciting business focus on acquisition that places an important emphasis on performance. Acquisition is now viewed not just as contracting, but as an investment toward the advancement of the agency mission and programs.

Because of this program-based and investment-based thrust of acquisition, many more types of people play a role in acquisition teams today. In addition to technical and contracting staff, for example, are representatives from program and financial offices. These people add fresh perspective, insight, energy, and innovation to the process—but they may lack some of the rich background and experience that acquisition often requires.

1.1 PURPOSE OF GUIDE

This guide is intended to help the people who are involved in the acquisition of information technology resources, including program,

technical, financial, and contracting professionals.

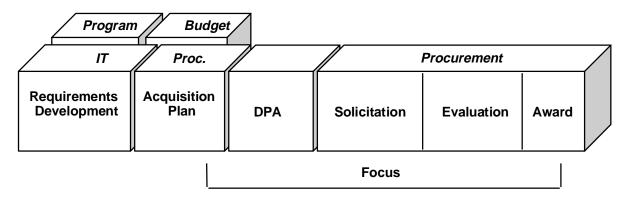
Acquisition of information technology resources involves many tasks, which may apply (in varying degrees) depending on the size, type, complexity, cost, and criticality of the resources being bought. This guide explains the acquisition life-cycle process so that acquisition teams can take the necessary steps to plan and manage acquisitions that will meet needs and result in improvements in the performance of agency missions and programs.

1.2 EFFECT OF REFORM ON ACQUISITION

Acquisition reform has changed, in a very fundamental way, the Federal government's approach to acquiring goods and services.

In the pre-reform era, IT procurements were governed by the Brooks Act. Agencies planning to conduct an acquisition with a value over a designated threshold had to prepare and forward an agency procurement request (APR) to the General Services Administration (GSA). If the APR was approved, GSA would issue a delegation of procurement authority (DPA) authorizing the agency to conduct the acquisition. The primary goal of the Brooks Act was to ensure that IT acquisitions were conducted in a manner that achieved full and open competition. The primary control was the DPA. This situation led to a focus on procurement and the pre-award source selection phase of the acquisition process. (See Exhibit 1-1.)

During this time, contract award and successful defense of the nearly inevitable protest were often the measures of success. Except in the case of highly public failures, very little



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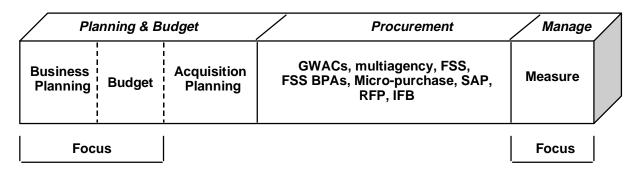
PRE-REFORM (BROOKS ACT) ERA

Exhibit 1-1

attention was paid to the actual implementation of the system or to determining whether the acquisition had achieved its goals in terms of cost, schedule, or quality. Another characteristic of the "Brooks era" was that individual offices had little incentive to work together. While some acquisitions (including those conducted by GSA-trained Trail Bosses) were the exception, for the most part each office did its own thing, forwarding the product or document to the next office for action.

Passage of a series of reform initiatives dramatically changed both the focus and process by which acquisitions are conducted. The combined effect of the Government Performance and Results Act (GPRA), Federal Acquisition Streamlining Act (FASA), Information Technology Management Reform Act (ITMRA), and Federal Acquisition Reform Act (FARA) changed the entire philosophy of the system. Where "full and open competition" was the watchword of the Brooks era, and "process" was a dominant concern, "performance" and "results" describe today's principal objectives. This change in philosophy shifted the emphasis from the mechanics of the contracting process to the needs of the agency. (See Exhibit 1-2.)

The effect on the acquisition process is a greatly increased emphasis on (and control through) business planning, budgeting, and



Source: ©Acquisition Solutions, Inc.

POST-REFORM ERA Exhibit 1-2

performance measurement. Agencies are now required to set performance objectives and to measure performance to ensure achievement of those objectives.

Even as the emphasis was changing, acquisition reform and agency initiatives brought about many new ways of acquiring information technology. For example, FASA legitimized and provided a strong incentive for multiple-award task and delivery order contracts. FASA and subsequent legislation further removed what were perceived as procedural impediments, streamlined the source selection process, and brought considerations of efficiency and effectiveness to the competition. Many believe that acquisition reform "solved" the procurement problem. acquisition reform, the primary objective of the acquisition team is to assist the program manager in achieving cost, schedule, and performance goals.

1.3 OVERVIEW OF THIS GUIDE AND THE ACQUISITION LIFE CYCLE

This guide describes the knowledge, tasks, and skills required to conduct successful acquisitions that meet users' needs. It begins with a focus on the knowledge required to participate effectively in an acquisition—knowledge based on the laws, policies, and regulations that specifically affect information technology acquisition.

The laws, passed by Congress and enacted by the President, are implemented by policies and regulations that are established to some extent by each agency and to a greater extent by agencies with Governmentwide responsibility. Being aware of the rules and organizations that affect information technology acquisition helps in understanding why the processes are important.

It is also important to know about the players inside and outside the agency that have a role and effect on acquisition. The larger the acquisition, the more likely that people outside the agency will become involved. Chapter 2 addresses the laws, policies, and regulations, as well as the people and organizations who are involved in or oversee Federal acquisitions.

Beginning with Chapter 3, this guide is organized by the life cycle of an acquisition:

- Mission and Business Planning (Chapter 3)
- Acquisition Planning (Chapter 4)
- Acquisition (Chapter 5)
- Contract Performance (Chapter 6)
- Disposal and Contract Closeout (Chapter 7)

The five phases of the acquisition life cycle are introduced briefly in the following sections, with details beginning with Chapter 3.

1.3.1 Mission and Business Planning

Business planning is addressed independently of acquisition planning, because this area has been dramatically affected by recent statutory reforms—notably GPRA, FASA, Therefore, the differentiation of ITMRA. mission and business planning from acquisition planning helps to emphasize these important reforms. Further, it helps to focus on the steps involved in deciding what is needed (business planning), before beginning the steps involved in how to get it (acquisition planning). A focus on business planning is very important because it disciplines the decisions involved in defining the problem and the intended result. These decisions are the basis for deciding whether an acquisition will be funded—in other words, there may be no acquisition if the business and programmatic reasons are not clear and compelling. The reality of today's budget process is that projects and acquisitions compete against each other for funding, first within the agency, and then at OMB and Congress.

1.3.2 Acquisition Planning

Once the basic need and desired results are defined, the acquisition itself is planned by a series of steps that are common in both business and government. (The level of detail, documentation, formality—or and lack thereof—depends on the size, scope, and criticality of the acquisition.) Initial steps include defining the need in functional terms (the first stage of the analysis of requirements), evaluating the current resources, and determining needed resources; in other words, what do I need, what do I have, and what's the difference?

Once the functional need has been defined. but before the new requirements document is fully developed, market research (which includes an assessment of feasibility) should begin. The purpose is to determine what's available and to answer "will it do what I need it to do?" This research enables the need to be described more fully-with consideration of the range of potential sources, availability of commercial items, and identification of standard commercial practices—in a document that may be called a requirements analysis (the term used in this guide), statement of need, or similar term. It answers in detail "what do I need?" Note, however, that the purpose of this document is to state the requirements or need in general business or mission terms, not in terms that specify a solution or particular technology—that is, more appropriately, the function of the alternatives analysis and of competition.

As the functional need is refined, then the alternatives to meet the need are assessed in an alternatives analysis. The alternatives may include technical choices—mainframe versus distributed processing, for example—and acquisition choices—upgrade system versus contract-out for solution, for example. Once a range of alternatives is identified, the alterna-

tives' risks and effects are considered, then those most likely to achieve the desired results with minimal or manageable risk are identified. This step answers "what are the best alternatives for further evaluation?"

Those best alternatives are evaluated in a benefit-cost analysis. The process helps to answer "what is the most cost-beneficial, riskadjusted alternative for acquisition?" It also answers "what is the projected return on investment of this acquisition?" Return on investment describes the value of the acquisition in terms of dollars and performance —such as net present value, benefit/cost ratio, and improved quality or speed of service. This valuation allows comparisons of acquisitions for funding decisions. In competing for scarce resources, those acquisitions showing the higher return on investment will have a higher probability of funding (both within the agency and by OMB).

As these steps are being taken, the acquisition plan is developed. This plan is the culmination of prior efforts by the acquisition team. It formulates the overall strategy for managing the acquisition and defines how the contract will be structured to satisfy the program goals and business performance objectives in a timely manner and at a reasonable cost.

Finally, an implementation plan is prepared that describes tasks, responsibilities, resources, and schedules needed to ensure successful implementation. It answers "what must be done to install or implement the required resources?" Implementation plans address such considerations as transition or migration to new resources, resource phase-in, space, power, lighting, cabling, and training.

1.3.3 Acquisition

One of the legacies of reform (and the agency innovations made possible by reform) is that there are many more contracting and ordering options than there were several years ago, most of which provide quicker and easier ac-

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¹ FAR 10.001

cess to needed resources. Acquisition professionals have a full range of alternatives. These include micro-purchases, simplified acquisition procedures, orders of products or services from Federal Supply Schedule (FSS) contracts or Governmentwide Agency Contracts (GWACs), and Blanket Purchase Agreements (BPAs) against FSS tracts—in addition to the more traditional Invitation for Bids (IFB) and Request for Proposals (RFP) processes. The range of options introduces new levels of consideration to the question, "how will I acquire the needed resources?" The central theme of acquisition in this guide is the discussion of the range of contracting and ordering options that agencies now have.

Decisions about the method of acquisition must be considered in association with the basic tenets and mandates of Federal procurement. These include requirements for competition and for publicizing acquisitions. Also addressed are the critical issues of source selection and selection of contract types.

1.3.4 Contract Performance

Once the contract is awarded, the contractor begins to work to achieve the objectives of the acquisition. This phase of the acquisition life cycle has three important characteristics: performance, measurement, and teamwork.

Measuring and managing a project to the attainment of performance goals and objectives requires the continued involvement of the acquisition team, especially the program manager. It also requires considerable involvement by the acquisition team's new members: contractor personnel.

This contract performance phase of the acquisition life cycle is guided far less by law, regulation, and policy than those described in preceding sections. To a large degree, the management of contract performance is guided by the contract's terms and conditions

and is achieved with the support of the business relationships and communications established between the contractor and the Government. It is in the best interest of all parties concerned that the contract be successful.

As the contract performance phase of the acquired resources nears an end, the preliminary steps that begin the new cycle of business planning for replacement resources may be initiated.

1.3.5 Disposal and Contract Closeout

The final phase of the life cycle is the disposal of resources. For equipment, this phase may involve reassigning within the agency, exchanging or selling (exchange/sale), excessing to other agencies, or surplussing (donating) outside the government. Disposal of software resources is determined by licensing agreements. For services, there may be no disposal considerations, other than contract closeout (which applies to contracts for all resources).

1.4 ITERATIVE, NOT LINEAR, PROCESS

It is important to understand that the steps in this guide are iterative, not linear. One decision and step does not follow the previous in a rigid sequence. Further, one step typically is *not* completed at one sitting; steps are completed over time, often revised and refined.

Acquisition is a process of continually revisiting, testing, and refining prior decisions, ideas, and options. It is a process in which what is learned and understood is readily used to make course corrections as the acquisition is shepherded to implementation and operation.

1.5 GSA'S ACQUISITION GUIDE SERIES

This guide is part of GSA's second generation of acquisition guides, which are being issued to address the new acquisition environment brought about by the significant statutory reforms introduced by the GPRA, FASA, ITMRA, and others. Changes in legislation, policies, and practices since 1990 have resulted in significant revisions in the way the Government conducts its business, requiring a new generation of guides.

The first generation of guides—some of which were technology-specific, while others were topical—were published from 1990 to 1995. The guides, listed below, were an excellent source of guidance on acquiring and managing information technology resources; they were widely requested, broadly disseminated, and well received by the acquisition community.

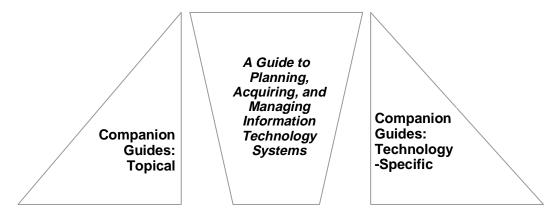
- Acquisition of Information Resources Overview Guide
- Acquisition of Information Resources Guide for Requirements Analysis and Analysis of Alternatives
- A Guide for Using GSA's Schedule Contracts for FIP Resources
- A Guide for Contracting Officers Technical Representatives
- A Guide for Acquiring Commercial Software
- A Guide for Acquiring FIP Support Services
- A Guide for Acquiring Maintenance Serv-

ices

- A Guide for Acquiring Telecommunications Equipment and Services
- A Guide for Acquiring Systems Integration Services
- A Guide for Acquiring Software Development Services
- A Guide for Acquiring and Managing Large Distributed Systems
- A Guide For Evaluating Proposals and Bids
- A Guide for Performance and Capability Validation

This document, A Guide to Planning, Acquiring, and Managing Information Technology Systems, is the keystone in the second generation of guides and serves as the foundation for auxiliary guides, called companion guides. (See Exhibit 1-3.) As indicated previously, this guide addresses acquisition from a life-cycle viewpoint. Its purpose is to reveal the framework of acquisition from the important front-end stage of business planning, to evaluating contractual performance, to disposing of resources.

The companion guides fall into two broad categories: topical guides and technology-specific guides. The need is especially clear



GSA'S APPROACH TO ACQUISITION GUIDES

Exhibit 1-3

for the topical guides, which provide practical direction to help implement new public policy objectives (such as modular contracting and past performance). Topical guides expand on issues described more briefly in this guide as part of the acquisition life cycle.

Technology-specific guides address life-cycle acquisition issues for specific types of technology. These might include, for example, product-specific issues for the requirements

analysis or preferred sources of supply or contracts for distinct products. Technology-specific guides (such as for commercial-off-the-shelf products) will be developed as agency needs become known.

Up-to-date information on GSA's products and services is available on the Internet at http://www.itpolicy.gsa.gov or by calling the Emerging IT Policies Division of the Office of Governmentwide Policy at (202) 501-1650.

CHAPTER 2. OVERVIEW

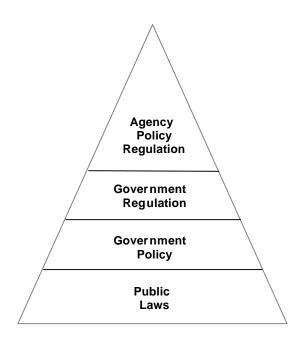
The acquisition process today is governed by individual initiative, business process innovations, and common sense—as well as by the laws, policies, and regulations that specifically affect information technology acquisition. These laws, policies, and regulations are established both outside and inside the agency. Being aware of the rules and organizations that affect information technology acquisition helps in understanding why the processes are important. Furthermore, the larger the acquisition, the more likely that people outside the agency will become involved.

2.1 ACQUISITION'S FRAMEWORK OF LAW, RULES, AND POLICIES

Each acquisition is conducted within an everchanging framework of laws, rules, and policies, as depicted in Exhibit 2-1. The foundation of this framework is the body of laws passed by Congress. These are implemented for agencies by Governmentwide policies (such as are issued by the President in Executive Orders and by OMB in circulars and memoranda). Laws and policies are implemented in greater detail by Governmentwide regulations (such as the Federal Acquisition Regulation [FAR]), and ultimately by agency policy and regulation (such as the Defense Federal Acquisition Regulation Supplement for Department of Defense agencies and the Department of Energy Acquisition Regulation). This framework is fluid; laws, policies, and regulations change each year. One responsibility of those involved in acquisition is to monitor those changes to remain current.²

As acquisition professionals become knowledgeable about the requirements at each level of the framework, they form a "mental map" of the relationships and their flow—from Congress, to OMB, to the agency's Chief Information Officer, and ultimately to each person involved in the acquisition. This understanding supports effective acquisition.

This guide addresses only Governmentwide requirements. It is up to each user to be knowledgeable about his or her agency's requirements. The more familiar users are with the requirements that apply to an acquisition, the less risk of failure or delay and the more likely the acquisition will achieve the desired results.



LEGISLATIVE FRAMEWORK
Exhibit 2-1

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² This guide is based on the acquisition framework in effect in October 1998.

2.1.1 Legislation

The foundation of the acquisition framework is legislation. No rule or policy may contradict the law.

A statute (law) is often identified by its public law number. For example, Public Law (P.L.) 93-400 is the Office of Federal Procurement Policy (OFPP) Act, enacted in 1974. The OFPP Act has been amended by several laws, such as the Office of Federal Procurement Policy Act Amendments of 1983 (P.L. 98-191) and the Office of Federal Procurement Policy Act Amendments of 1988 (P.L. 100-679).

The various sections of a public law are later "codified" in the United States Code (U.S.C.), which is another way to refer to the provisions of law. For those bodies of law that are frequently amended, reference may be made by U.S.C. citation (to avoid confusion about which law is being cited, the original statute or the statute as amended). For example, the following (frequently amended) four statutes govern the Federal acquisition process; they are listed here with references to U.S.C. citations in which their provisions predominantly have been codified:

- Armed Services Procurement Act—10 U.S.C. §2301 et seq.³
- Federal Property and Administrative Services Act—41 U.S.C. §201 et seq.
- Office of Federal Procurement Policy Act—41 U.S.C. §401 et seq.
- *Small Business Act 15*U.S.C. §631 et seq.

Normally, people involved with acquisitions are not directly concerned with the language of these statutes but rather with the Federal Acquisition Regulation (FAR) provisions that implement them. However, it may be wise to become more knowledgeable about the underlying laws, especially those that have

sparked Federal acquisition reform in recent years. Doing so can enhance understanding and the ability to plan and manage acquisitions that achieve mission and program objectives.

In addition to the four statutes mentioned above, there are others that apply. Described below are the laws that are most associated with recent reforms and most affect information technology acquisition.

2.1.1.1 Clinger-Cohen Act

The National Defense Authorization Act of 1996 (P.L. 104-106)⁴ contained two important sections that relate to acquisition and specifically focus on information technology acquisition and management. Division D of P.L. 104-106 is the Federal Acquisition Reform Act of 1996, and Division E is the Information Technology Management Reform Act of 1996. Congress subsequently re-named Divisions D and E as the Clinger-Cohen Act to honor the legislation's principal sponsors.⁵ In practice, all three names are used today, but the more specific ITMRA and FARA are more common in the acquisition community.

2.1.1.1.1 Information Technology Management Reform Act of 1996

ITMRA decentralized the authority and responsibility for the acquisition of information technology resources from GSA to the individual agencies and established important new requirements. Among these provisions is the requirement that agencies "shall determine, before making an investment in a new information system" whether the function to be supported by the system:

³ "et seq." means "and the following" [provisions].

⁴Authorization and appropriations acts often serve as vehicles to amend basic procurement statutes and to prescribe new policies and procedures.

⁵ Former Representative William Clinger and former Senator William Cohen.

- Should be performed by the agency,
- Should be performed by the private sector or another agency, or
- Should be redesigned to improve its efficiency.

These points are often referred to as the "three pesky questions."

Other important changes relate to the ways that agencies justify, budget, and manage information technology acquisitions. Agencies are required by ITMRA to:

- Use capital planning and investment control to maximize the value and assess and manage the risks of information technology acquisitions.
- Ensure that "performance measurements are prescribed for information technology used by or to be acquired for the executive agency and that the performance measurements measure how well the information technology supports programs of the executive agency."
- Use performance- and results-based management methods that focus on intended outcomes of investments in information technology and that measure actual outcomes.
- Use modular contracting, to the maximum extent practicable, for an acquisition of a major system of information technology.
- Designate Chief Information Officers (CIO's) to ensure that information technology is acquired and that information resources are managed in advance of agency mission and programs.

The effect of ITMRA is that acquisitions should be justified based on program improvement goals, budgeted for as capital investments, and measured to ensure that the goals and projected returns-on-investment are realized.

2.1.1.1.2 Federal Acquisition Reform Act of 1996

FARA affects acquisition in general, making major changes in procurement processes. For example, with regard to competition, FARA introduced the concept of "efficiency" in three areas:

- Efficient competition,
- Efficient approval procedures, and
- Efficient competitive range determinations.

With regard to efficient competition, FARA requires that the FAR "shall ensure that the requirement to obtain full and open competition is implemented in a manner that is consistent with the need to efficiently fulfill the Government's requirements." With regard to efficient approval procedures, FARA raised the thresholds above which noncompetitive contracts must be approved by higher level agency officials. And with regard to efficient competitive range determinations, FARA authorizes contracting officers to limit the number of proposals in the competitive range, in accordance with the criteria specified in the solicitation, to the greatest number that will permit an efficient competition among the offerors rated most highly in accordance with In effect, this requirement such criteria. changed the standard for determining the competitive range, from those with a reasonable chance for award to those "rated most highly."

In addition, FARA:

- Provides for and specifies the content of pre-award debriefings for contractors eliminated from competition.
- Exempts the procurement of commercial items from a requirement that certified cost or pricing data must accompany an offer—and allows a contracting officer to require such cost or pricing data to the extent necessary to determine the reasonableness

of the price of the contract, subcontract, or modification.

- Authorizes through 1999 the use of simplified acquisition procedures for the acquisition of commercial items valued at greater than the simplified acquisition threshold (generally \$100,000 including options) but not greater than \$5 million when the contracting officer reasonably expects that responses to such offers will include only commercial items.
- Requires the FAR to list Federal procurement provisions that are inapplicable to contracts for the procurement of commercially available off-the-shelf items.

FARA's requirement to achieve "full and open competition ... consistent with the need to efficiently fulfill the Government's requirements" puts the mandate for achieving results (through acquisition) on an equal footing with the competition mandate. The effect is that contracting officials have greater discretion and decision-making authority to make reasonable choices that balance the two mandates.

2.1.1.2 Paperwork Reduction Act of 1995 (P.L. 104-13)

The Paperwork Reduction Act of 1995 calls for the development and maintenance of a Governmentwide "strategic plan for information resources management" that includes plans for meeting the Federal information technology needs. Among other purposes are to provide for timely and equitable dissemination of public information and to address issues of privacy, confidentiality, and security. With regard to information technology, the Paperwork Reduction Act of 1995 requires each agency to:

- Assume responsibility and accountability for information technology investments.
- Promote the use of information technology by the agency to improve the productivity,

- efficiency, and effectiveness of agency programs, including the reduction of information collection burdens on the public and improved dissemination of public information.
- Assume responsibility for maximizing the value and assessing and managing the risks of major information systems initiatives through a process that is (1) integrated with budget, financial, and program management decisions; and (2) used to select, control, and evaluate the results of major information systems initiatives.

The legacy of the Paperwork Reduction Act (originally enacted in 1980) is that information is a resource that must be managed.

2.1.1.3 Federal Acquisition Streamlining Act of 1994 (P.L. 103-355)

FASA amends provisions enacted by the Competition in Contracting Act and other Federal procurement law, streamlining the process by establishing authority for micropurchases (under \$2,500) and simplified acquisition procedures for use in acquisitions up to \$100,000 generally (but see FARA). FASA made other important changes, such as:

- Requiring cost, performance, and schedule goals for major acquisition programs.
- Establishing a preference for awarding multiple task- or delivery-order contracts for the same or similar need and providing a fair opportunity (competitive) process for issuing orders against such contracts.
- Establishing specific requirements for debriefing, including timing and content.
- Refining the statutory rules for source selection evaluation, including that cost or price must be considered, and that factors and subfactors be identified and their relative importance revealed.
- Establishing a statutory basis that "encourage[s] the consideration of the offerors'

past performance in the selection of contractors."

- Changing the requirements for publicizing certain acquisitions to provide for notice by electronic means (in lieu of *Commerce Business Daily* announcements).
- Authorizing OFPP, the National Aeronautics and Space Administration, the Federal Aviation Administration, and the Department of Defense to test alternative and innovative acquisition practices.
- Defining and establishing a statutory preference for commercial item acquisition.

The effect of FASA has been the growth of streamlined acquisition alternatives in agencies, including GSA's multiple award schedule program and agencies' GWACs.

2.1.1.4 Government Performance and Results Act of 1993 (P.L. 103-62)

GPRA puts the focus on program goals and improvements. GPRA (also referred to as the Results Act) is the foundation for FASA's and ITMRA's refining requirements that link program needs, the budget, and acquisitions.

GPRA requires agencies to submit to OMB and the Congress a five-year strategic plan for delineating performance goals for their program activities. It further requires agencies to report annually to the President and the Congress on program performance for the previous fiscal year, setting forth performance indicators, actual program performance, and a comparison with plan goals for that fiscal year. One of the purposes is to "improve Federal program effectiveness and public accountability by promoting a new focus on results, service quality, and customer satisfaction."

2.1.1.5 Competition in Contracting Act (P.L. 98-369)

The Competition in Contracting Act (CICA) establishes a policy of full and open competition. It requires collection of market research data, costs, and pricing information before a solicitation is prepared. CICA also requires that proposals be evaluated only on factors (and subfactors) included in a solicitation.

CICA establishes three types of competition: full and open competition, full and open competition after exclusion of sources, and other than full and open competition. It limits the circumstances under which other than full and open competition can be used and sets specific justification requirements based on the seven exceptions to full and open competition. (See FAR 6.3.)

Other aspects of CICA are as follows:

- It prohibits the use of other than competitive procedures due to lack of advance planning or loss of fiscal year funds.
- It codifies requirements related to planning and market research, publicizing procurements, solicitation, evaluation, cost and pricing data, and award. Thus, requirements that used to be only in the regulations are now also written in the law (codified).
- It requires that each agency designate a competition advocate.

CICA reinforced the Federal policy to place a fair proportion of its acquisitions, including contracts and subcontracts, with small businesses and small disadvantaged businesses.

2.1.1.6 Office of Federal Procurement Policy Act (P.L. 93-400, as amended) (41 U.S.C. §401 et seq.)

The Office of Federal Procurement Policy Act (which has been amended numerous times) established the OFPP in OMB as the central executive branch organization for "overall"

direction of procurement policies, regulations, procedures, and forms."

The law applies broadly to procurement, requiring agencies to designate senior procurement officials, declaring policy (see box below) and addressing such areas as procurement notices in the *Commerce Business Daily* (and by other means), procurement data reporting, conflicts of interest, and procurement integrity (ethics).

With regard to the procurement integrity, this act prohibits a Federal employee from soliciting or discussing employment with a contractor during the procurement process. It bars Federal employees from engaging in any action during a procurement process that

would affect his or her negotiations for future employment. It also bars the contractor from offering employment. Other prohibited actions include offering or accepting a gratuity (thing of value), or asking for or passing on information that is proprietary or related to a source selection.

The act also places certain restrictions on a former Federal employee when representing a contractor before the Government on any contract action on which he or she worked while a member of the Government.

The act requires that persons in the procurement process avoid any appearance of:

• Using public office for private gain.

CHAPTER 7—OFFICE OF FEDERAL PROCUREMENT POLICY Sec. 401. Declaration of Policy

It is the policy of the United States Government to promote economy, efficiency and effectiveness in the procurement of property and services by the executive branch of the Federal Government by —

- (1) promoting full and open competition;
- (2) establishing policies, procedures, and practices which will provide the Government with property and services of the requisite quality, within the time needed, at the lowest reasonable cost;
- (3) promoting the development of simplified uniform procurement processes;
- (4) promoting the participation of small business concerns;
- (5) supporting the continuing development of a competent, professional work force;
- (6) eliminating fraud and waste in the procurement process;
- (7) eliminating redundant administrative requirements placed on contractor and Federal procurement officials;
- (8) promoting fair dealings and equitable relationships with the private sector;
- (9) ensuring that payment is made in a timely manner and only for value received;
- (10) requiring, to the extent practicable, the use of commercial products to meet the Government's needs;
- (11) requiring that personal services are obtained in accordance with applicable personnel procedures and not by contract;
- (12) ensuring the development of procurement policies that will accommodate emergencies and wartime as well as peacetime requirements;
- (13) promoting, whenever feasible, the use of specifications which describe needs in terms of functions to be performed or the performance required; and
- (14) establishing policies and procedures that encourage the consideration of the offerors' past performance in the selection of contractors.

- Giving preferential treatment.
- Impeding Government efficiency or economy.
- Losing independence or impartiality.
- Making Government decisions outside official channels.
- Adversely affecting the confidence of the public in the Government's integrity.

Much of the conduct that the act prohibits is also covered by other statutes and regulations.

2.1.1.7 Other Laws

There are other laws that apply less broadly to information technology. These are summarized in the following subsections and in Exhibit 2-2.

2.1.1.7.1 National Technology Transfer and Advancement Act of 1995 (P.L. 104-113)

Section 12 of the National Technology Transfer and Advancement Act of 1995 establishes a preference for commercially developed standards.⁶

| OTHER ACQUISITION-RELATED PROVISIONS AND STATUTES | | | | |
|---|---|--|--|--|
| Statute | Requirement/Direction | | | |
| [Prohibition against] Disclosure of confidential information generally (18 U.S.C. 1905) | Establishes specific penalties for the improper disclosure of trade secrets entrusted to Federal agencies. | | | |
| Prompt Payment Act (1982) | Requires timely payment of contractors. | | | |
| Trade Agreements Act (1979) | Waives the Buy American Act for certain supply contracts. | | | |
| Contract Disputes Act (1978) | Establishes a procedure and forums for resolving claims arising under or related to a contract. | | | |
| Service Contract Act (1965) | For covered service contracts over \$2,500, mandates clauses on minimum wages and fringe benefits, safe and sanitary working conditions, notification to employees of the minimum allowable compensation, and equivalent Federal employee classifications and wage rates. Places a limitation of five years on certain service contracts. | | | |
| Truth in Negotiations Act (1962) | Requires offerors or contractors to submit accurate, complete, and current cost or pricing data and to certify the data. | | | |
| Anti-Kickback Act (1934) | Prohibits "pay-offs" to get a Government contract. | | | |
| Buy American Act (1933) | Provides preference for domestic over foreign materials when acquiring supplies for the Government. | | | |
| Anti-Deficiency Act (1906) | Prohibits commitments unless funding is available. Provides for personal liability. | | | |

OTHER ACQUISITION-RELATED LAWS APPLYING TO INFORMATION TECHNOLOGY

Exhibit 2-2

⁶ Sometimes referred to as the "Morella voluntary consensus standards," for the bill's sponsor, Representative Connie Morella.

The National Institute of Standards of Technology (NIST), a bureau within the Department of Commerce, is responsible under the law for coordinating "the use by Federal agencies of private sector standards, emphasizing where possible the use of standards developed by private, consensus organizations." Examples of such organizations are the Electronic Industries Associations, the Institute of Electrical and Electronics Engineers, and the Information Technology Industry Council.

Traditionally, NIST has adopted commercially developed standards in Federal Information Processing Standards Publications (FIPS PUBs) for citation in Government specifications. Those who develop agency specifications must consider standards.

2.1.1.7.2 Computer Security Act of 1987 (P.L. 100-235)

The Computer Security Act of 1987 amends several laws to add provisions relating to the protection of computer-related assets, such as hardware, software, and data. This law:

- Assigns responsibility to NIST for the development of computer security guidelines and standards.
- Requires that Federal agencies identify existing systems and systems under development that contain sensitive information.
- Requires development and maintenance of a security plan for each identified sensitive computer system.
- Requires mandatory periodic training in computer security awareness and accepted computer security practices for all employees who are involved in the management, use, or operation of Federal computer systems.

Provisions at FAR 4.404(a), 39.107, and 52.239-1 address security.

2.1.1.7.3 Privacy Act of 1974 (P.L. 93-579)

The Privacy Act of 1974 was enacted to provide for the protection of information related to individuals that is maintained in Federal information systems. It establishes specific criteria for maintaining the confidentiality of sensitive data, and it also establishes guidelines for determining which data are covered. According to the Privacy Act, Federal agencies and employees are responsible for:

- Maintaining the confidentiality of data covered by the act.
- Taking actions necessary to ensure to a reasonable degree that data concerning individuals and maintained in Federal information systems are accurate.

When a contractor is doing work for the Government and has access to information covered by the Privacy Act, the contractor and any contractor employee or subcontractor can be held responsible for complying with provisions of the act, provided the Government makes the contractor aware of the situation. Failure to comply with the provisions of the Act could result in criminal and civil penalties to the agency and its employees. FAR Subparts 24.1 and 39.105 provide guidance and specify standard clauses for inclusion in solicitations regarding privacy.

2.1.2 Policy and Regulation

Laws are implemented for Federal agencies by Governmentwide policies and regulations. Some of the most important are described below.

2.1.2.1 Executive Orders

The President issues Executive Orders, which remain in effect until rescinded, to establish policies for executive agencies. Some Executive Orders relate to recent procurement reform and information technology acquisition.

2.1.2.1.1 Executive Order 13011, Federal Information Technology

Executive Order 13011, Federal Information Technology, dated July 16, 1996, specifies the manner in which the executive branch is to implement the provisions of ITMRA. Under the order, agencies are tasked to significantly improve the management of their information systems, including the acquisition of information technology. The order also promotes the strategy of structuring information systems investments "into manageable projects as narrow in scope and brief in duration as practicable" (modular contracting). It establishes three interagency groups (discussed in more detail in section 2.3) that have Governmentwide roles in information resources planning, acquisition, and management:

- Chief Information Officers Council
- Government Information Technology Services Board
- Information Technology Resources Board

2.1.2.1.2 Executive Order 12999, Educational Technology: Ensuring Opportunity for All Children in the Next Century

Executive Order 12999, Educational Technology: Ensuring Opportunity for All Children in the Next Century, issued April 17, 1996, authorizes agencies, to the extent permitted by law, to "give highest preference to schools and nonprofit organizations, including community-based educational organizations, in the transfer, through gift or donation, of educationally useful Federal equipment," including information technology.

2.1.2.1.3 Executive Order 12979, Agency Procurement Protests

Executive Order 12979, Agency Procurement Protests, was issued October 25, 1995, to encourage offerors on bids, proposals, or quotes to protest to the procuring agency rather than

to the General Accounting Office or to the courts.

2.1.2.1.4 Executive Order 12931, Federal Procurement Reform

The President issued Executive Order 12931, Federal Procurement Reform, on October 13, 1994, "to ensure effective and efficient spending of public funds through fundamental reforms in Government procurement." Among its provisions, this order requires agencies to:

- Ensure that procurement organizations set goals, measure results, and meet customer needs.
- Designate an agency procurement executive to oversee the development of procurement goals and guidelines, measure and evaluate performance against goals, and enhance the career development of the acquisition workforce.
- Provide Government purchase cards to users to take advantage of FASA's micropurchase authority.
- Use simplified acquisition procedures, when applicable.
- Buy commercial products, emphasize contractors' past performance, and promote best value.
- Replace rules, reporting requirements, certifications, and other administrative practices that are not required by statute with guiding principles that reward innovation.

2.1.2.1.5 Executive Order 12845, Requiring Agencies to Purchase Energy Efficient Computer Equipment

The President issued Executive Order 12845 to require that all acquisitions of microcomputers, including personal computers, monitors, and printers, meet "EPA Energy Star" requirements for energy efficiency.

2.1.2.2 Office of Management and Budget Circulars

OMB issues important long-term policies in documents called OMB Circulars. Summaries of the circulars most important to information technology acquisition follow.

2.1.2.2.1 OMB Circular A-11, Preparation and Submission of Budget Estimates

Because FASA and ITMRA establish an "investment" focus that tightly links programs, budget, and acquisitions, the importance of OMB Circular A-11 to acquisition professionals has increased dramatically. There are three key areas of interest to those concerned with obtaining (and retaining) funds for acquisition:

- Part 42 (formerly Part 43) establishes the data requirements and justifications related to acquisition, operation, and use of information technology (including financial management systems). It also details requirements for "agency analysis for information systems investments" which includes business/mission analysis, work process redesign, planning and requirements development, and acquisition strategies.
- Part 2 addresses preparation and submission of strategic plans and annual performance plans under the requirements of GPRA.
- Part 3 provides guidance to agencies on planning, budgeting, and acquisition of capital assets, including information technology. Under Part 3 requirements, agencies prepare a capital asset plan and justification for certain major acquisitions, such

⁷ In some agencies in the past, the development of information technology requirements and the allocation of the budget were separate processes. Under the pressure of statute and OMB guidance, agency Chief Information Officers are changing and linking the processes.

as those that are mission-critical or are significant in the administration of agency programs. Part 3 stipulates:

"The capital asset plan should also satisfy requirements in the Information Technology Management Reform Act of 1996 (ITMRA) for performance and results-based management. This may include goals for improving agency operations through the use of information technology, benchmarking of agency processes, descriptions of how information technology will be used in helping achieve program goals, and assessments of the staffing, skill, and training needs of agency employees in the information resources management area. ITMRA requirements can be met by including these goals in the annual performance plan."

OMB Circular A-11 is re-issued annually, normally in June or July.

2.1.2.2.2 OMB Circular A-76, Performance of Commercial Activities

OMB Circular A-76 provides guidance on the Government's performance of commercial activities. It is intended to prevent the Government from competing with its own citizens. Briefly, OMB Circular A-76 establishes three overall policies:

- Achieve economy and enhance productivity.
- Retain governmental functions in-house.
- Rely on the commercial sector.

OMB Circular A-76 does not apply to "inherently governmental functions." These are functions "so intimately related to the public interest as to mandate performance by Government employees." These functions normally require either the exercise of discretion in applying Government authority or the use

of value judgments in making decisions for the Government. Examples include:

- Direction and management of the Armed Services or intelligence activities.
- Direction of Federal employees.
- Regulation of natural resources.
- Regulation of industry and commerce.
- Direction of monetary transactions and entitlements.

These functions may not be contracted out.

2.1.2.2.3 OMB Circular A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs

OMB Circular A-94 provides general guidance for conducting benefit-cost and lease-purchase analyses. It also provides (in Appendix C to the circular) the discount rates to be used in "evaluating Federal programs whose benefits and costs are distributed over time"—which includes bid and proposal evaluation as well as benefit-cost and lease-purchase analyses.

The discount factors are updated annually, usually in February.

2.1.2.2.4 OMB Circular A-109, Major System Acquisitions

OMB Circular A-109, established over 20 years ago, governs the acquisition by executive branch agencies of major systems, including major information technology systems. Major system acquisition programs are those that:

- Are directed at and critical to fulfilling an agency mission,
- Entail the allocation of relatively large resources,
- Warrant special management attention, or
- Are so designated by agencies.

There are a number of features that characterize an A-109 acquisition. For example:

- Major systems requirements are based on mission needs.
- A management structure is developed to support the procurement.
- The acquisition is managed throughout its life cycle.
- Key decision points are planned and scheduled.
- Specifications are performance- or functional-based.
- Competitors are encouraged to bid innovative alternative solutions.
- Competing alternative solutions are funded by the Government for demonstration before the final selection is made.

It is this last characteristic—funding demonstrations for competitive evaluation and selection—that became the hallmark of an A-109 procurement. The other characteristics of A-109 acquisitions are, in general, typical of many of today's acquisitions.

2.1.2.2.5 OMB Circular A-130, Management of Federal Information Resources

Circular A-130 is OMB's primary policy circular on information resources acquisition and management. It establishes policy for the management of Federal information processing resources in two broad areas: information management policies, and information systems/information technology management.

Information management policies recognize information as a valuable resource requiring effective agency management. These policies address information management planning, information collection and dissemination (manual and electronic), records management, agency information dissemination manage-

ment systems, and privacy and security safeguards.

Among the eighteen information systems and information technology management policies are requirements that agencies:

- Establish multiyear strategic planning processes.
- Meet information processing needs through interagency sharing or commercial sources.
- Acquire information technology competitively to minimize total life-cycle costs.
- Acquire off-the-shelf software, unless custom software development has been documented as more cost-effective.
- Assure continuity of support should normal operations be disrupted by an emergency.
- Use Federal standards.
- Apply up-to-date technology to improve operations, reduce costs, and deliver services to the public.

There are three appendices to the circular. Two relate to privacy and security, and the third is an analysis of key sections that provides interpretive information about the circular's provisions.

2.1.2.3 Office of Federal Procurement Policy (OFPP) Policy Letters

To meet its Governmentwide responsibility for the "overall direction" of procurement policies and regulations, OFPP periodically issues Policy Letters. A number of the OFPP Policy Letters issued since 1990 affect information technology acquisition.

• OFPP Policy Letter 97-1, Procurement System Education, Training and Experience Requirements for Acquisition Personnel (9/25/97) promotes "uniform implementation of a program to provide for improvements in the quality of the Government's acquisition workforce, with due regard for differences in program requirements among agencies that may be appropriate and warranted in view of the agency mission."

- OFPP Policy Letter 95-1, Subcontracting Plans for Companies Supplying Commercial Items (10/28/95) establishes policies related to the Small Business Act's requirement that apparently successful offerors of commercial items negotiate a subcontracting plan that becomes a material part of the contract.
- OFPP Policy Letter 93-1, Management Oversight of Service Contracting (5/18/94) establishes Governmentwide policy, assigns responsibilities, and provides guiding principles for executive agencies in managing the acquisition and use of services.
- OFPP Policy Letter 92-5, Past Performance Information (12/30/92) establishes requirements for evaluating contractor performance and for using past performance information in the contractor selection process.
- OFPP Policy Letter 92-4, Procurement of Environmentally Sound and Energy-Efficient Products and Services (11/2/92) provides policies for the acquisition and use of environmentally sound, energy-efficient products and services—and requires that, "specifications (a) do not exclude the use of recovered materials; (b) do not unnecessarily require the item to be manufactured from virgin materials; and (c) require the use of recovered materials and environmentally sound components to the maximum extent practicable without jeopardizing the intended end use of the item."
- OFPP Policy Letter 92-3, Procurement Professionalism Program Policy—Training for Contracting Personnel (6/24/92)

establishes a Governmentwide standard and policies for skill-based training in performing contracting and purchasing duties.

- OFPP Policy Letter 92-1, Inherently Governmental Functions (9/23/92) establishes policy relating to service contracting and inherently governmental functions, with an emphasis on "avoiding an unacceptable transfer of official responsibility to Government contractors."
- OFPP Policy Letter 91-2, Service Contracting (4/9/91) establishes policy for the acquisition of services by contract, emphasizing "the use of performance requirements and quality standards in defining contract requirements, source selection, and quality assurance"—in other words, performance-based service contracting.

2.1.2.4 Raines' Rules

Raines' Rules⁸ are eight rules that were originally issued on October 25, 1996, in OMB Memorandum M-97-02 and were subsequently incorporated in OMB Circular A-11 (1997 and 1998 version), Appendix 300A, Principles of Budgeting for Capital Asset Acquisitions. The rules are presented in Exhibit 2-3.

Note that Raines' Rules incorporate what has become known as ITMRA's "three pesky questions." These criteria are critical because major information systems will not be funded unless agencies can demonstrate the actions they have taken to address them.

2.1.2.5 Federal Acquisition Regulation (FAR)

The FAR is the primary Governmentwide regulation used by executive agencies for the acquisition of supplies and services with appropriated funds. The FAR is not just a contracting regulation; it addresses topics that

apply throughout the life cycle, including such critical aspects as acquisition planning (Part 7), market research (Part 10), description of needs (Part 11), and contract administration (Part 42). Those who are involved in acquisition, whether programmatic, technical, financial, or contracting, should be knowledgeable about the FAR and about changes to the FAR as they occur.

For example, statutory and policy reforms have prompted the inclusion of two sections in the FAR that have important implications for those involved in managing acquisitions: the guiding principles for the Federal Acquisition System and performance standards.

The origin of these guiding principles is linked to the general reform philosophy espoused by the Clinton-Gore Administration. Vice President Gore, in the *Report of the National Performance Review: Creating a Government that Works Better and Costs Less*, recognized the need for deregulation in the acquisition process and emphasized that acquisition regulations should be rewritten to provide for empowerment and flexibility. According to the report, the acquisition regulations should:

- Shift from rigid rules to guiding principles.
- Promote decision making at the lowest possible level.
- End unnecessary regulatory requirements.
- Foster competitiveness and commercial practices.
- Shift to a new emphasis on choosing "best value" products.

⁸ Named for former OMB Director Franklin D. Raines.

⁹ The FAR is updated by Federal Acquisition Circulars (FACs), typically about six times a year. FACs are published in the *Federal Register* and on the Internet. See http://www.arnet.gov/far/.

RAINES' RULES

"Investments in major information systems proposed for funding in the President's budget should:

- support core/priority mission functions that need to be performed by the Federal Government;
- 2. be undertaken by the requesting agency because no alternative private sector or governmental source can support the function more efficiently;
- 3. support work processes that have been simplified or otherwise redesigned to reduce costs, improve effectiveness, and make maximum use of commercial, off-the-shelf technology;
- 4. demonstrate a projected return on the investment that is clearly equal to or better than alternative uses of available public resources. Return may include: improved mission performance in accordance with measures developed pursuant to the Government Performance and Results Act; reduced cost; increased quality, speed, or flexibility; and increased customer and employee satisfaction. Return should be adjusted for such risk factors as the project's technical complexity, the agency's management capacity, the likelihood of cost overruns, and the consequences of under- or non-performance.
- 5. for information technology investments, be consistent with Federal, agency, and bureau information architectures which: integrate agency work processes and information flows with technology to achieve the agency's strategic goals; reflect the agency's technology vision and year 2000 compliance plan; and specify standards that enable information exchange and resource sharing, while retaining flexibility in the choice of suppliers and in the design of local work processes;
- 6. reduce risk by: avoiding or isolating custom-designed components to minimize the potential adverse consequences on the overall project; using fully tested pilots, simulations, or prototype implementations when necessary before going to production; establishing clear measures and accountability for project progress; and, securing substantial involvement and buy-in throughout the project from the program officials who will use the system;
- 7. be implemented in phased, successive segments as narrow in scope and brief in duration as practicable, each of which solves a specific part of an overall mission problem and delivers a measurable net benefit independent of future segments, unless it can be demonstrated that there are significant economies of scale at acceptable risk from funding more than one segment or there are multiple units that need to be acquired at the same time; and
- 8. employ an acquisition strategy that appropriately allocates risk between the Government and the contractor, effectively uses competition, ties contract payments to accomplishments, and takes maximum advantage of commercial technology."

RAINES' RULES
Exhibit 2-3

The FAR guiding principles, presented in Exhibit 2-4, are important because they convey the ultimate objectives of acquisition and encourage "personal initiative and sound business judgment." Note especially the final guiding principle—that is, the absence of guidance should be interpreted as permitting innovation and the use of sound business judgment.

In addition to inclusion of guiding principles, the FAR also now includes a statement of performance standards (shown in Exhibit 2-5) clearly focusing the acquisition process on customer satisfaction.

FAR 1.102 Statement of Guiding Principles for the Federal Acquisition System

- (a) The vision for the Federal Acquisition System is to deliver on a timely basis the best value product or service to the customer, while maintaining the public's trust and fulfilling public policy objectives. Participants in the acquisition process should work together as a team and should be empowered to make decisions within their area of responsibility.
- (b) The Federal Acquisition System will
 - (1) Satisfy the customer in terms of cost, quality, and timeliness of the delivered product or service by, for example
 - (i) Maximizing the use of commercial products and services;
 - (ii) Using contractors who have a track record of successful past performance or who demonstrate a current superior ability to perform; and
 - (iii) Promoting competition.
 - (2) Minimize administrative operating costs;
 - (3) Conduct business with integrity, fairness, and openness; and
 - (4) Fulfill public policy objectives.
- (c) The Acquisition Team consists of all participants in Government acquisition including not only representatives of the technical, supply, and procurement communities but also the customers they serve and the contractors who provide the products and services.
- (d) The role of each member of the Acquisition Team is to exercise personal initiative and sound business judgment in providing the best value product or service to meet the customer's needs. In exercising initiative, Government members of the Acquisition Team may assume if a specific strategy, practice, policy or procedure is in the best interests of the Government and is not addressed in the FAR, nor prohibited by law (statute or case law), Executive order or other regulation, that the strategy, practice, policy or procedure is a permissible exercise of authority.

STATEMENT OF GUIDING PRINCIPLES FOR THE FEDERAL ACQUISITION SYSTEM

Exhibit 2-4

FAR 1.102-2 Performance Standards

- (a) Satisfy the customer in terms of cost, quality, and timeliness of the delivered product or service.
 - (1) The principal customers for the product or service provided by the [Federal Acquisition] System are the users and line managers, acting on behalf of the American taxpayer.
 - (2) The System must be responsive and adaptive to customer needs, concerns, and feed-back. Implementation of acquisition policies and procedures, as well as consideration of timeliness, quality, and cost throughout the process, must take into account the perspective of the user of the product or service.
 - (3) When selecting contractors to provide products or perform services, the Government will use contractors who have a track record of successful past performance or who demonstrate a current superior ability to perform.
 - (4) The Government must not hesitate to communicate with the commercial sector as early as possible in the acquisition cycle to help the Government determine the capabilities available in the commercial marketplace. The Government will maximize its use of commercial products and services in meeting Government requirements.
 - (5) It is the policy of the System to promote competition in the acquisition process.
 - (6) The System must perform in a timely, high quality, and cost-effective manner.
 - (7) All members of the Team are required to employ planning as an integral part of the overall process of acquiring products or services. Although advance planning is required, each member of the Team must be flexible in order to accommodate changing or unforeseen mission needs. Planning is a tool for the accomplishment of tasks, and application of its discipline should be commensurate with the size and nature of a given task.
- (b) Minimize administrative operating costs.
 - (1) In order to ensure that maximum efficiency is obtained, rules, regulations, and policies should be promulgated only when their benefits clearly exceed the costs of their development, implementation, administration, and enforcement. This applies to internal administrative processes, including reviews, and to rules and procedures applied to the contractor community.
 - (2) The System must provide uniformity where it contributes to efficiency or where fairness or predictability is essential. The System should also, however, encourage innovation, and local adaptation where uniformity is not essential.
- (c) Conduct business with integrity, fairness, and openness.
 - (1) An essential consideration in every aspect of the System is maintaining the public's trust. Not only must the System have integrity, but the actions of each member of the Team must reflect integrity, fairness, and openness. The foundation of integrity within the System is a competent, experienced, and well-trained, professional workforce. Accordingly, each member of the Team is responsible and accountable for the wise use of public resources as well as acting in a manner which maintains the public's trust. Fairness and openness require open communication among team members, internal and external customers, and the public.
 - (2) To achieve efficient operations, the System must shift its focus from "risk avoidance" to one of "risk management." The cost to the taxpayer of attempting to eliminate all risk is prohibitive. The Executive Branch will accept and manage the risk associated with empowering local procurement officials to take independent action based on their professional judgment.
 - (3) The Government shall exercise discretion, use sound business judgment, and comply with applicable laws and regulations in dealing with contractors and prospective contractors. All contractors and prospective contractors shall be treated fairly and impartially but need not be treated the same.
- (d) Fulfill public policy objectives. The System must support the attainment of public policy goals adopted by the Congress and the President. In attaining these goals, and in its overall operations, the process shall ensure the efficient use of public resources.

FAR 1.102-2—PERFORMANCE STANDARDS Exhibit 2-5

2.1.2.6 Federal Property Management Regulation (41 CFR¹⁰ Chapter 101)

The Federal Property Management Regulation governs the management of all Government-owned property, including information technology. Key sections applicable to information technology acquisition and management are as follows:

- Subchapter F, Management and Use of Telecommunications Resources, Part 101-35, Telecommunications Management Policy.
- Subchapter B, Management and Use of Information and Records, Part 101-11, Creation, Maintenance, and Use of Records.
- Part 101-43, Utilization of Personal Property, subpart 101-43.6, Disposition of Information Technology Excess Personal Property.

2.1.2.7 Agency Supplemental Regulations

Agencies often issue their own policies and regulations to implement Governmentwide policies and regulations. A good example is an agency acquisition regulation, such as the Defense Federal Acquisition Regulation Supplement for Department of Defense agencies and the Department of Energy Acquisition Regulation for the Department of Energy. Information technology professionals should become knowledgeable about their agency's unique requirements.

2.2 PUBLIC POLICY OBJECTIVES THAT AFFECT ACQUISITION

As the preceding sections have indicated, laws, policies, and regulations establish public policy objectives that affect acquisition. Often these objectives are addressed repeatedly (and with increasing detail) in the Governmentwide guidance. A good example is the

recurring theme of "performance," which is introduced by GPRA, refined by FASA and ITMRA, and implemented in various documents, such as Executive Order 13011 and OMB Circular A-11.

The following sections address briefly the predominant public policy objectives to be considered when planning for and managing acquisitions.

2.2.1 Capital Planning and Budgeting

"Capital assets are land, structures, equipment, and intellectual property (e.g., software) that are used by the Federal Government and have an estimated useful life of two years or more." This definition includes information technology.

Over the last several years, OMB has been refining its approach to and guidance on capital planning and budgeting. The thrust is to establish a single, integrated process "to ensure that capital assets contribute to the achievement of agency strategic goals and objectives."¹² More than just reiterating the relationships between program goals, investment, and acquisition, the trend of capital planning and budgeting policy is to increase the "size of the window" on which budget decisions are made, from an annual or biennial focus to a life-cycle focus. This new focus will require change in agencies, OMB, and Congress. The implication is the need for those involved with information technology resources to become more skilled at financial management and investment analysis. There is a new need to know (with a degree of precision) what programs and technology cost now and what they will cost in the future. Developing this knowledge requires skill in analyzing alternative courses of action and evaluating costs, benefits, and return on investment.

¹⁰ Code of Federal Regulations

¹¹ OMB Circular A-11, 300.4(a) (1998)

¹² OMB's Capital Programming Guide: Supplement to OMB Circular A-11, Part 3.

2.2.2 Investment Criteria

Under ITMRA, agencies are required to "establish effective and efficient capital planning processes" for selecting, managing, and evaluating the results of major investments in information systems. There are three major implications of this requirement. First, the investment criteria against which the acquisition will be considered for funding must be known. Second, the investment performance goals for the acquisition must be established. Third, the actual performance against the goals must be measured.

2.2.3 Return on Investment

Return on investment is the ultimate measure for acquisitions and is the basis on which acquisitions compete for funding. In Federal acquisitions, return on investment is not necessarily quantified in traditional measures such as "breakeven point" or "benefit-cost ratio." Consistent with the statutory emphasis on mission improvements, return on investment is a broader concept that can incorporate program performance goals.¹³

2.2.4 Risk Assessment and Management

Risk is one of the investment criteria used to compare acquisitions for funding. ITMRA, agencies are to determine "whether to undertake a particular investment in information systems" based on "the quantitatively expressed projected net, risk-adjusted return on investment and specific quantitative and qualitative criteria for comparing and prioritizing alternative information systems investment projects." The performance standards for the Federal Acquisition System recognize and accept a certain degree of risk, reflected by the shift from risk avoidance to the less expensive risk management.

2.2.5 Re-engineering

One of Raines' Rules, and the third of ITMRA's "three pesky questions," requires that before acquisition, agencies assess the work processes to be supported by the new information technology so that they may be simplified or otherwise redesigned to reduce costs, improve effectiveness, and make maximum use of commercial off-the-shelf technology. This requirement helps assure that the acquisition does more than speed up the processing of inefficient work processes. It requires the engagement of the program staff in the acquisition.

2.2.6 Performance Measurement

GPRA, FASA, ITMRA, and implementing policies have emphasized the importance of establishing performance goals—and then measuring actual (past) performance to determine whether the goals have been realized. Furthermore, FASA "limits" to ten percent the variance from projected to actual results:

It is the policy of Congress that the head of each executive agency head should achieve, on average, 90 percent of the cost, performance, and schedule goals established for major acquisition programs of that agency. 14

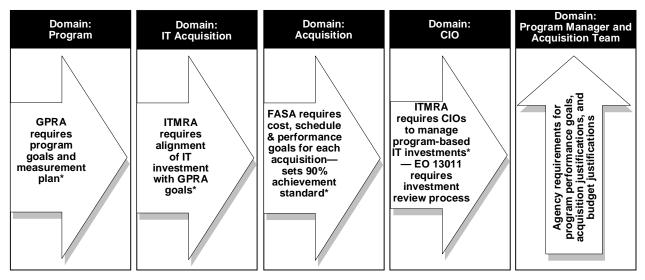
Exhibit 2-6 demonstrates the linkage between the performance requirements of GPRA, ITMRA, and FASA.

2.2.7 Past Performance

Past performance evaluation is part of contract administration. It is concerned with assessing and reporting how well the contractor achieved the goals and the requirements of the contract (which ideally relate to GPRA program goals). Past performance information is available for use in ensuing competitions to evaluate contractors for award.

¹³ Note Raines' Rule 4.

¹⁴ The FASA provisions shown above are as modified by the National Defense Authorization Act for Fiscal Year 1998 (P.L. 105-85).



*linked to budget by OMB Circular A-11 (includes Raines' Rules) and to acquisition by FAR 1.102-2 Performance

MAP OF PERFORMANCE-RELATED RELATIONSHIPS

Exhibit 2-6

2.2.8 Full and Open and Efficient Competition

The Competition in Contracting Act replaced the prior standard of "maximum practicable competition" with "full and open competition," which means "all responsible offerors are allowed to compete."15 However, when combined with the requirement that competitive ranges include all offerors whose proposals could be made responsive to the requirement through discussions, inefficiencies resulted. Agencies sometimes discussed and evaluated for source selection many more offers than the top-rated proposals. This activity took time, sometimes affecting adversely the fielding of mission-critical resources. Furthermore, contractors with little likelihood of award spent valuable resources remaining in a competition needlessly. Had such contractors been aware that award to their proposal was unlikely, they might have cut their losses and dropped out of the competition.

FARA addressed this situation by introducing the concept of "efficient" competition—even though it did not modify *per se* CICA's defi-

nition of full and open competition. FARA provides: "If the contracting officer determines that the number of offerors that would otherwise be included in the competitive range ... exceeds the number at which an efficient competition can be conducted, the contracting officer may limit the number of proposals in the competitive range, in accordance with the criteria specified in the solicitation, to the greatest number that will permit an efficient competition among the offerors rated most highly in accordance with such criteria."

The implementation of these provisions is of great concern to industry and requires careful judgment and effective communications with contractors.

2.2.9 Performance-Based Contracting

ITMRA addresses performance- and results-based management, requiring each executive agency to "ensure that performance measurements are prescribed for information technology used by or to be acquired for, the executive agency and that the performance measurements measure how well the information technology supports programs of the

¹⁵ As implemented in FAR 6.000.

executive agency." Therefore, agencies first must determine their requirements in terms of performance and then incorporate those performance needs into their contracts.

Performance-based service contracting is not new. OFPP Policy Letter 91-2, Service Contracting, established in 1991 that:

It is the policy of the Federal Government that (1) agencies use performance-based contracting methods to the maximum extent practicable when acquiring services, and (2) agencies carefully select acquisition and contract administration strategies, methods, and techniques that best accommodate the requirements.

OFPP has issued a number of documents to help agencies implement performance-based contracting.¹⁶

2.2.10 Modular Contracting

ITMRA directs Federal agencies to use modular contracting, to the maximum extent practicable, for the acquisition of major information technology systems. The requirement is reiterated in Executive Order 13011 which instructs agencies to apply modular contracting "where appropriate" and "to the maximum extent practicable."

Modular contracting provides for the delivery, implementation, and testing of a workable system or solution in discrete increments, or modules. Modular contracting is one of many approaches that may be used by Federal agencies to acquire major information technology systems. It may be achieved by a single procurement or multiple procurements, but is intended to ensure that the Government is not obligated to purchase more than one module at a time. Modular contracting is intended to balance the Government's need for fast access to rapidly changing technology and incentive-

based contractor performance, with stability in program management, contract performance, and risk management.

2.2.11 Coherent Agency Architecture

ITMRA makes each agency Chief Information Officer responsible for "developing, maintaining, and facilitating the implementation of a sound and integrated information technology architecture for the executive agency." Raines' Rules tied this requirement to the budget:

Investments in major information systems proposed for funding in the President's budget should be consistent with Federal, agency, and bureau information architectures which: integrate agency work processes and information flows with technology to achieve the agency's strategic goals; and specify standards that enable information exchange and resource sharing.

Agencies are currently developing these Information Technology Architectures under guidance issued by OMB.¹⁷ In the future, OMB will likely require information about how proposed acquisitions of information technology relate to the agency information technology architectures.

2.2.12 Communications with the Private Sector

Communications between Government and industry during the acquisition process have been governed by restrictions limiting the release of sensitive procurement information and protecting the integrity of the acquisition process. However, the limited exchange of information can be costly. More open communications are more efficient and can be more effective, as well, enabling industry to

¹⁶ The documents are available on the web at http://www-far.npr.gov/References/References.html.

¹⁷ OMB Memorandum M-97-16, issued June 18, 1997, provides guidance on the development and implementation of Information Technology Architectures.

better understand the Government's need and respond with innovative solutions.

In recognition of this fact, the Administrator for Federal Procurement Policy and numerous agency officials have pledged to improve communication practices "through all phases of the acquisition cycle." The pledge finds that:

Complex legal restrictions on the release of sensitive procurement information and agency reactions thereto, while protecting the integrity of the Federal acquisition process, have contributed to an acquisition climate where legitimate and necessary exchange of information is often unduly restricted.

Competitors for Government contracts need information to make intelligent business decisions regarding the preparation of proposals in response to agency solicitations. Also, agencies must be able to obtain enough information to conduct meaningful market research, thus enabling them to effectively consider the latest and best that industry can offer to meet the Government's needs. 18

2.2.13 Small Business and Socio-Economic Programs

Policies related to small business and, especially, socio-economic programs in the Federal Government are in transition.

With regard to small business, FASA established a \$2,500 micro-purchase threshold and established a \$100,000 simplified acquisition threshold. In general, the provisions require that acquisitions over \$2,500 but under \$100,000 be set aside for small business. While this approach, theoretically, would increase the small business share of the Federal

market, other factors are important. Examples of these are contract bundling (small businesses may lack the resources to compete for large contracts) and past-performance evaluation preferences (for which small and emerging businesses may have more difficulty gaining full credit). Small businesses are concerned, and they are making their concerns known to Congress.

While these factors also affect small disadvantaged businesses, there is another significant factor. The Supreme Court in Adarand Constructors, Inc., v. Pena decided that any Federal program that makes race a basis for contract decision making must be narrowly tailored to serve a compelling Government interest—this is called the strict scrutiny standard. Set-aside programs for small disadvantaged businesses (SDBs) were not established nor had they operated on this basis. However, new processes and regulations are currently being implemented that assess the share of minority contracting by standard industrial classification (SIC) code and permit price and evaluation adjustment percentages when minority-owned firms are underrepresented in a SIC code group. At the heart of the changes are three procurement mechanisms that benefit SDB concerns by use of-

- A price evaluation preference for SDBs in unrestricted competitions.
- Source selection evaluation factor or subfactor for planned use of SDB subcontractors.
- Monetary incentives for subcontracting with SDB concerns.

It is important to monitor these emerging policies and to plan acquisitions that will permit the participation of the small business community in support of the agency's small business goals.

¹⁸ See http://www.itpolicy.gsa.gov/mkm/gsaepp/pledge.htm.

2.2.14 Accessibility

Federal accessibility policy is found on the Rehabilitation Act of 1973 (as amended). This Act requires federally conducted or federally sponsored programs to be accessible to persons with disabilities and mandates that management policies must not discriminate in the hiring, placement, and advancement of persons with disabilities. GSA provides information on accessibility through the Center for IT Accommodation (CITA). Information is available at http://www.itpolicy.gsa.gov/cita/index.htm.

2.3 GOVERNMENTWIDE ROLES, RESPONSIBILITIES, AND AUTHORITIES

There are agencies and councils that have Governmentwide roles, responsibilities, and authorities that affect information technology acquisition and management. A brief description of these groups follows.

2.3.1 Office of Management and Budget

OMB's predominant mission is to assist the President in overseeing the preparation of the Federal budget and to supervise its administration in Executive Branch agencies. In helping to formulate the President's spending plans, OMB evaluates the effectiveness of agency programs, policies, and procedures; assesses competing funding demands among agencies; and sets funding priorities.

In addition, OMB oversees and coordinates the Administration's procurement, financial management, information, and regulatory policies. These policies are published in OMB circulars and memoranda, some of which establish information technology acquisition and management policy (discussed previously). In each of these areas, OMB's role is to help improve administrative management, develop better performance measures and coordinating mechanisms, and reduce any unnecessary burdens on the public.

2.3.2 Office of Federal Procurement Policy

As a part of OMB, the OFPP prescribes Governmentwide procurement policies that must be followed by executive agencies. In addition, OFPP:

- Oversees the collection, development, and dissemination of procurement data through the Federal Procurement Data System.
- Oversees the Federal Acquisition Institute which is charged with supporting and continuing development of a competent, professional workforce.
- Develops innovative procurement methods and procedures to be tested by selected executive agencies.
- Advises the President and the Congress on matters relating to procurement.

2.3.3 General Services Administration

GSA is responsible under EO 13011 for developing, maintaining, and disseminating for the use of the Federal community "recommended methods and strategies for the development and acquisition of information technology." In addition, GSA serves as a focal point for liaison on information resources management, including Federal information technology, on the Federal, state, and international (non-governmental) levels.

2.3.4 National Institute of Standards and Technology

The responsibilities of the Department of Commerce's NIST for information technology standards were refined by the National Technology Transfer and Advancement Act of 1995 which established a preference for commercially developed standards. NIST is also responsible under EO 13011 for the "standards responsibilities under the Computer Security Act of 1987." NIST works with national and international standards-

developing organizations and adopts voluntary standards for Government specification.

2.3.5 Chief Information Officers Council

The Chief Information Officers Council, established by Executive Order 13011 to implement the Clinger-Cohen Act, recommends overall Federal information technology management policy, procedures, and standards; shares information and experiences and provides advice; identifies opportunities for and sponsors cooperation in using information resources; and addresses the hiring, training, classification, and professional development needs of personnel in Federal information resource management.

2.3.6 Government Information Technology Services Board

The Government Information Technology Services Board, referred to as GITSB, or the "Services Board," was established by Executive Order 13011 to implement the Clinger-Cohen Act. The Services Board supports continued implementation of the recommendations of the National Performance Review; identifies and promotes the development of innovative technologies, standards, and practices; and creates opportunities for crossagency cooperation, intergovernmental approaches, and multi-agency projects.

2.3.7 Information Technology Resources

The Information Technology Resources Board, referred to as the ITRB or "Resources Board," provides independent assessments to assist in development, acquisition, and management of selected major information systems; reviews, at the request of an agency and OMB, specific information systems proposed or under development and makes recommendations; and publicizes lessons learned and promising practices.

2.3.8 Trail Boss Program

GSA initiated the Trail Boss Program in 1988 to train senior Federal professionals in information technology procurement. Over the last nine years, the program has graduated over 1,200 acquisition professionals from the United States and Canadian governments. The program offers two seminars:

- Trail Boss 1 Program Management (Acquisition)
- Trail Boss 2 Program Management (Implementation)

Roundup, a 3-day seminar held once a year, is designed to review the most recent regulations and laws, explore innovative approaches, develop new management skills, and introduce the Trail Boss of the Year.

2.3.9 General Accounting Office

The General Accounting Office (GAO) is now the only Governmentwide forum in the legislative or executive branch that hears protests against agencies' contracting actions. ¹⁹

A protest is a written objection by an interested party to a solicitation, a proposed award, or an award of a contract. Protests are typically filed at one of three times: before bids are due (usually to protest the specifications), after bids are received (usually to protest elimination from consideration for award), or after the award is made (usually to protest not receiving the award). Interested parties may protest to GAO or the agency, or they may file suit at a District Court or the Court of Federal Claims.

A protest to GAO may take up to 100 calendar days to resolve, 65 if the "express option" is elected. The process generally requires the agency to respond to the protest allegations by

¹⁹ The authority of the General Services Board of Contract Appeals to hear information technology protests was suspended by ITMRA in 1996.

a written report. Hearings may or may not be held. Procedures for protests to GAO are described in FAR Part 33. GAO's guidance is codified at 4 CFR Part 21, GAO Bid Protest Regulations.

Every effort should be made to resolve concerns before they escalate to a protest or dispute. Open and frank communications (including carefully planned debriefings) are the best hedge against protests and disputes.

2.3.10 Agency Protest and Dispute Forums

The Government encourages interested parties that plan to protest to seek resolution within the agency. FAR 33.103 encourages agencies to "provide for inexpensive, informal, procedurally simple, and expeditious resolution of protests" within 35 days from protest filing. Protesters that are not satisfied with the agency response may still protest to the GAO (provided the protest is timely).

A dispute after contract award may result in a claim being filed with the contracting officer by one of the contracting parties. The claim may be for payment, adjustment or interpretation of contract terms, or other relief under an existing contract. The Contract Disputes Act of 1978 establishes procedures for resolving disputes.

FAR Part 33 addresses protests and disputes.

2.3.11 District Courts and Court of Federal Claims

Rather than protest, contractors may elect to file suit at a District Court or the Court of Federal Claims. Although this course of action is typically the most costly, contractors may believe favorable resolution is more likely from the judicial branch.

2.3.12 Alternative Dispute Resolution Forums

Executive Branch policies promote the use of Alternative Dispute Resolution (ADR) proce-

dures (such as arbitration) for the "relatively inexpensive and expeditious resolution of issues in controversy." Essential elements of ADR include:

- Existence of an issue in controversy.
- A voluntary election by both parties to participate in the ADR process.
- An agreement on alternative procedures and terms to be used in lieu of formal litigation.
- Participation in the process by officials of both parties who have the authority to resolve the issue in controversy.
- Certification by the contractor in accordance with FAR 33.207 when using ADR procedures to resolve all or part of a claim under the authority of the Administrative Dispute Resolution Act (P.L. 101-522).

ADR procedures may be used at any time that the contracting officer has authority to resolve the issue in controversy. ADR proceedings may be conducted within the agency or, by agreement, in another agency. For example, both GSA's Board of Contract Appeals (GSBCA) and GAO offer ADR services.

2.4 AGENCY ROLES, RESPONSIBILITIES, AND AUTHORITIES

Some roles, responsibilities, and authorities for information technology acquisition are specified by regulation. Others may vary from acquisition to acquisition (depending on size, scope, and complexity) and from agency to agency (depending on agency rules and procedures). The following sections describe in general the roles, responsibilities, and authorities of agency personnel who participate in, manage, and oversee the acquisition of information resources.

2.4.1 Chief Information Officer

Each agency has a CIO who is responsible for the agency's information technology planning, budgeting, investment, performance, and acquisition. CIOs are responsible under ITMRA for:

- Providing advice and assistance to the head of the executive agency and other senior agency management personnel to ensure that information technology is acquired and information resources are managed in accordance with law.
- Developing, maintaining, and facilitating the implementation of a sound and integrated information technology architecture for the executive agency.
- Promoting the effective and efficient design and operation of all major information resources management processes for the executive agency, including improvements to work processes.

Because the CIO has approval authority related to investment in and acquisition of information technology in support of agency programs, it is important to be knowledgeable about the CIO's policies and processes.

2.4.2 Agency Investment Review Board

Each agency has a process through which requests for funding are considered and approved or disapproved. For information technology acquisitions, the processes are mandated by ITMRA and require the establishment of an agency investment review board (which is usually part of or closely associated with the office of the CIO). Agency heads are required to:

- Provide for the selection of agency information technology investments, the management of such investments, and the evaluation of the results of such investments.
- Integrate agency processes for making budget, financial, and program management decisions.

- Establish minimum criteria to be applied when considering whether to undertake a particular investment in information systems, including criteria related to the quantitatively expressed projected net, risk-adjusted return on investment and specific quantitative and qualitative criteria for comparing and prioritizing alternative information systems investment projects.
- Provide for identifying information systems investments that would result in shared benefits or costs for other Federal agencies or state or local governments.
- Provide for identifying for a proposed investment quantifiable measurements for determining the net benefits and risks of the investment.
- Provide the means for senior management personnel of the executive agency to obtain timely information regarding the progress of an investment in an information system, including a system of milestones for measuring progress, on an independently verifiable basis, in terms of cost, capability of the system to meet specified requirements, timeliness, and quality.

For a major acquisition to be funded, it must first be approved by the agency's investment review board.

2.4.3 Program Manager

Because most information technology acquisitions are made to support a specific program and specific program objectives, the role of the program manager is to represent programmatic interests during the acquisition. The program manager is responsible for ensuring that the organization's long- and short-term needs are met by the acquisition.

Due to the GPRA, FASA, and ITMRA mandates for program performance goals, the program manager's role on the team is, arguably, the most important. Initially, the program manager may be involved in strategic plan-

ning that leads to the development of specific information resources programs. planned program includes contracting for information technology, the program manager will likely be involved in activities such as the following:

- Establishing program performance goals.
- Working with the Office of the Chief Information Officer to gain approval and funds for acquisitions.
- Describing the functional need.
- Assisting in conducting market research.
- Participating in assessing alternatives and conducting benefit-cost analysis.
- Justifying and "positioning" the acquisition to compete for funding.
- Obtaining funding.
- Preparing program-related portions of the solicitation document.
- Preparing justifications for specifications or procurement methods that limit competition (if necessary).
- Serving on evaluation panels.
- Monitoring contractor performance.
- Measuring actual performance against projected performance.
- Reporting to the agency investment review board (for major acquisitions).

2.4.4 Acquisition Team

The trend today, given statutory mandates, is that acquisitions are conducted by teams of people, working cooperatively toward a common goal. Participants in the acquisition process should be empowered to make decisions within their area of responsibility.

The acquisition team, sometimes called an Integrated Product (or Project) Team²⁰, normally consists of representatives from at least three key organizations: program, technical (information technology/information resource management), and contracting. Increasingly (because of ITMRA's investment mandates), a fourth organization is represented: finance. Regardless of its representation, the team is responsible for ensuring that the acquisition:

- Satisfies legal and regulatory requirements.
- Has performance and investment objectives.
- Successfully meets the agency's needs and intended results.
- Remains on schedule and within budget.

2.4.5 Information Technology/Information Resource Management Personnel

Information technology and information resources management personnel provide technical expertise to the program manager and the contracting officer throughout the acquisition process. Such individuals may also be the most knowledgeable about information technology acquisition reform, including the new requirements related to performance, reengineering, modular strategies, and so on. As such, information technology/information resource management personnel can serve as "enablers," helping to shape the acquisition strategy and to meet critical statutory and regulatory requirements.

One of the primary responsibilities of information technology/information resource management personnel is to be knowledgeable

²⁰ Integrated Product Teams (IPTs) are at the core of DoD's Integrated Process and Product Development (IPPD). This management technique integrates all acquisition activities, starting from requirements definition through production, fielding/deployment, and operational support to optimize the design, manufacturing, business, and supportability processes.

about technology, including the hightechnology industry and its standard commercial practices. As acquisition requirements dictate, the information technology/information resource management staff may be called upon to:

- Assist in determining needs and goals.
- Conduct market research.
- Assess technical and acquisition alternatives and assist in conducting benefit-cost analysis.
- Assist with justifying and positioning the acquisition to compete for funding.
- Prepare specifications, statements of work, and technical material for incorporation in the solicitation document.
- Verify that user-written statements of work and functional specifications are technically feasible and not unduly restrictive.
- Assist with developing justifications for specifications or procurement methods that limit competition (if necessary).
- Serve on evaluation panels.
- Support acceptance testing and inspection procedures.
- Assist in monitoring contractor performance.
- Measure actual performance against projected performance.
- Report to the agency investment review board (for major acquisitions).

Information technology/information resource management personnel may perform other tasks in support of program or contracting activities.

2.4.6 Senior Procurement Executive

The Senior Procurement Executive, who is responsible for management direction of the agency's procurement system and implementation of unique procurement policies, regulations, and standards, may be involved in major acquisitions.

2.4.7 Contracting Officer

According to FAR Subpart 1.6, authority and responsibility to contract for authorized supplies and services is vested in the agency head, who may establish contracting activities and delegate broad authority to manage the agency's contracting functions. Agency heads or designees issue warrants to contracting officers stating the limits of their authority.

Only contracting officers²¹ have the authority to enter into, administer, and terminate (if necessary) contracts for the Government. Contracting officers are responsible for ensuring performance of all necessary actions for effective contracting, ensuring compliance with the terms of the contract, and safeguarding the interests of the United States in its contractual relationships. Contracting officers should be allowed wide latitude to exercise business judgment in order to meet these responsibilities and to:

- Advise on acquisition strategies and alternatives.
- Provide advice on who will communicate (and how) with industry.
- Conduct market research (including customary market practices).
- Request and consider the advice of specialists in audit, law, engineering, transportation, and other fields, as appropriate.
- Ensure that sufficient funds are available for obligation.
- Prepare the solicitation document (if necessary).

²¹ In some agencies, a relatively small number of highlevel officials are designated contracting officers solely by virtue of their positions.

- Verify that the planned acquisition is not unduly restrictive.
- Assist with developing justifications for specifications or procurement methods that limit competition (if necessary).
- Publicize forthcoming acquisitions.
- Issue and amend solicitations.
- Arrange and conduct pre-proposal conferences.
- Ensure that contractors receive impartial, fair, and equitable treatment.
- Determine the competitive range.
- Conduct negotiations with responsive and responsible offerors.
- Determine the successful offeror if a source selection authority (SSA) is not designated.
- Notify the successful offeror.
- Notify and debrief unsuccessful offerors.
- Award and sign contracts for the Government.
- Manage contracts and delegate certain contract administration functions to contracting officer-appointed representatives.
- Modify contracts.
- Assist in monitoring contractor performance.
- Terminate contracts.
- Prepare and present the Government's position in a dispute claim or bid protest.
- Report to the agency investment review board (for major acquisitions).

2.4.8 Administrative Contracting Officer

The contracting officer, who normally has several contracts to administer concurrently, often designates an Administrative Contracting Officer (ACO) and authorizes that person

to perform certain functions on his or her behalf. The contract identifies the ACO and specifies the authorized actions. In performing assigned contract administration functions, the ACO typically:

- Schedules a post-award conference with the winning contractor as soon as possible after contract award.
- Monitors the contractor's technical, schedule, and cost performance against the contract specifications.
- Ensures that funding is provided to the contractor on a timely basis.
- Schedules any Government activities required by the contract.
- Performs formal acceptance of contract deliverables for the Government.

The ACO is not authorized to change (add, delete, or modify) any contract terms, conditions, or requirements—or to take any action that might appear to effect change. The contracting officer alone has such authority (which must be in writing).

2.4.9 Contracting Officer's Technical Representative

The contracting officer (CO) delegates specific contract administration functions to a representative of the program office who has functional or technical expertise concerning the requirement. This individual, whose identity and duties are specified in the contract, is the Contracting Officer's Technical Representative (COTR). Typically, the COTR:

- Serves as technical liaison between the Government and contractor.
- Determines whether contract deliverables meet technical and performance specifications.
- Prepares or assists in preparing contractor performance evaluations.

In some cases, the COTR and the ACO are the same person.

2.4.10 Source Selection Authority

The Source Selection Authority (SSA)—a term most often used when the selection authority is not the contracting officer—is the Government official designated by the agency to direct the source selection process and make the selection decision. The SSA is often a representative of the program office (usually at a higher level in the organization than the program manager). The SSA should be at a management level above the contracting officer and cognizant technical officials so that the SSA will be in a position to evaluate the best interests of the Government, considering both acquisition and programmatic concerns. FAR 15.303 describes the responsibilities of the SSA.

2.4.11 Source Selection Evaluation Board

When necessary to assist with source selection on a large and complex acquisition, an agency may designate a Source Selection Evaluation Board (SSEB). The SSEB helps the contracting officer develop the source selection plan to evaluate proposals against the solicitation's evaluation criteria.

Members of the SSEB represent the various technical and functional disciplines needed to evaluate proposals for the acquisition. They are usually organized into teams, commonly the Technical Evaluation Panel and the Cost Evaluation Panel (described below). When these panels are large, most agencies include only the panel chairpersons and perhaps key team leaders in the formal SSEB meetings. The source selection plan (SSP) should clearly outline these relationships and responsibilities.

2.4.11.1 Technical Evaluation Panel

The Technical Evaluation Panel (TEP) evaluates offerors' technical proposals against the

solicitation's technical evaluation factors in accordance with the source selection plan. The TEP may also support the contracting officer in discussions and negotiations.

Although its size will vary according to the complexity of the acquisition, the TEP should have sufficient technical and functional expertise to adequately assess the technical merits of offerors' proposals. For complex acquisitions, the TEP may be organized into smaller teams that specialize in evaluating specific parts of the proposals. Some agencies also use a nonvoting member from the contracting office as an advisor.

2.4.11.2 Cost Evaluation Panel

The Cost Evaluation Panel (CEP) conducts price and/or cost analysis of offerors' proposals. It also conducts a total cost evaluation in accordance with the solicitation and SSP. The CEP may support the contracting officer in discussions and negotiations.

2.4.12 Source Selection Advisory Council

For very complex or sensitive acquisitions, the SSA may use an additional evaluation organization—the Source Selection Advisory Council (SSAC).²² (See Exhibit 2-7.)

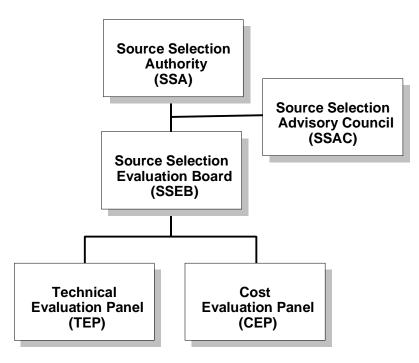
The SSAC advises the SSA on the status of the source selection process and prepares an independent comparative analysis of the factual evaluation information presented by the SSEB. When a separate SSAC is not used, its advisory role is performed by the SSEB.

2.4.13 Competition Advocate

The Competition in Contracting Act requires that each agency designate a competition advocate, who is responsible for:

- Promoting the acquisition of commercial items.
- Promoting full and open competition.

 $^{^{\}rm 22}$ Used by NASA and the Department of Defense.



SOURCE SELECTION ORGANIZATION STRUCTURE Exhibit 2-7

- Challenging requirements that are not stated in terms of functions to be performed, performance required, or essential physical characteristics.
- Challenging barriers to the acquisition of commercial items and full and open com-

petition—such as unnecessarily restrictive statements of work, unnecessarily detailed specifications, and unnecessarily burdensome contract clauses.

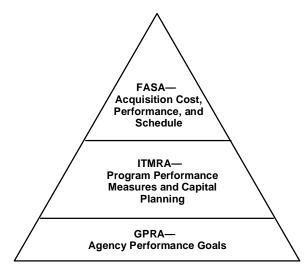
CHAPTER 3. MISSION AND BUSINESS PLANNING

Planning for an acquisition should not begin with thoughts of the contract or information technology, but rather with the desired improvement. The first thing to consider is what is needed (in terms of results), before beginning on the steps involved in how to get it. Too often, agency personnel answer the question "What is needed?" with a technical or acquisition solution. They say, "I need an xyz computer system," or "I need a contract with xyz firm." This is contrary to the most important acquisition reform underway today: performance-based acquisition.

One of the key conceptual changes introduced by acquisition reform legislation²³ is the focus on performance, described briefly and illustrated in Exhibit 3-1:

- GPRA requires agency performance goals.
- ITMRA requires determining (before making an acquisition) who should perform the function and whether the function should be reengineered—and requires that proposed investments in information technology be assessed by an agency investment review board to determine how well the information technology will support the agency program performance goals.
- FASA requires cost, performance, and schedule goals for individual acquisitions.

This focus means that the foundation for proposed investments in information technology is the agency's required mission and program performance improvements. This foundation normally must be established by or in cooperation with people who work in the program area that the information technology resources will support when they are acquired. Again,



THE LINKAGE OF STATUTORY PERFORMANCE MANDATES

Exhibit 3-1

note that the focus is not what information technology is required; the focus is what performance improvement is required.

With this foundation, when the planning process is complete, an agency should be able to demonstrate clearly how an individual information technology acquisition's cost, performance, and schedule objectives will assist in achieving the agency's mission and goals.

3.1 PURPOSE OF CHAPTER

This chapter focuses on mission and business planning as a means to discipline the decisions involved in defining and justifying, in terms of the intended results, an agency's needs. This focus helps emphasize the steps involved in deciding what is needed, how it will enhance the agency's mission performance, and who should do it (mission and business planning)—before beginning on the steps involved in how to acquire it (acquisition planning).

²³ See Chapter 2 for further information on these statutory requirements.

These decisions are important because they become the basis for deciding whether an acquisition will be funded. In other words, there may be no acquisition if the business and programmatic reasons are not clear and compelling in demonstrating how they help achieve the agency's goals and objectives. The reality of today's budget process is that projects and acquisitions compete against each other for funding, first in the agency, and then at the OMB and Congress. Clearly, those projects that identify and support more compelling mission-related performance, cost, and schedule objectives will have a much greater chance of being funded.

3.2 OVERVIEW OF CHAPTER

This chapter describes the critical elements of mission and business planning which, at their most fundamental level, address:

- Perceiving a need,
- Linking the need to mission and performance objectives (GPRA),
- Assessing alternatives to capital assets (ITMRA), and
- Preparing for investment review and budgeting.

3.3 PERCEIVING A NEED

Every acquisition begins with a fundamental understanding of need. This understanding of need may originate at different levels. It may be, for example, that the agency's information technology office realizes that a local area network is not robust enough for current demands. It may be that an agency program office realizes that a more powerful capability for electronic information dissemination would help meet customer needs better and reduce costs. And it may be that an agency top-level manager realizes that, in order to meet mission goals and objectives, new investments in studies, people, and capital assets may be required.

Regardless of the level at which the perception of need occurs, in today's acquisition environment, the need must be related to the agency's mission and performance objectives under GPRA.

3.4 LINKING THE NEED TO MISSION AND PERFORMANCE OBJECTIVES

The most effective foundation for an acquisition is the benefit it provides in supporting and improving an agency's mission and performance goals and objectives (reported to OMB and Congress under GPRA's strategic and annual performance planning processes). Describing an acquisition in terms of how it supports these mission-based performance goals allows an agency to describe clearly the relationship of the acquisition to its business. Proposed acquisitions without a clear relationship between the acquisition and agency mission—and without a clear mandate for the continued mission-criticality of the functions to be automated—may not be funded.

3.4.1 Identifying Performance Objectives

The first step is to identify related goals and objectives in the strategic and annual plans. This step is best illustrated by several hypothetical examples based on the U.S. Department of Education's Strategic Plan (1998 – 2002), one of the top-rated GPRA plans for that period.

Consider, for example, the person in the agency's information technology office who realizes that a local area network is not robust enough for current demands. One of the strategic plan's goals is to make the Department "a high-performance organization by focusing on results, service quality, and customer satisfaction." This goal is supported by an objective that "information technology investments are sound and used to improve impact and efficiency." The objective has a core strategy to "ensure that the Department has a cost-effective, efficient, accessible, and reliable network infrastructure, with modern

workplace software and hardware, to promote productivity and meet business needs." Finally, the strategic plan provides one performance indicator (measure): "At least 90% of all employees will assess productivity as 'significantly improved' as a result of available technology, as shown by the employee survey in 2000." Note that even though the person in the agency's information technology office may not have contributed to the strategic plan with this specific need in mind, the plan nonetheless provides the foundation, partial justification, and even a performance measure that apply to the need.

In contrast, assume that a program manager—who realized that a more powerful capability for electronic information dissemination would help meet customer needs better and reduce costs—contributed this need directly to the strategic plan. In that case, the mission-criticality and objective is well established for the need, and it has undergone review in the agency, at OMB, and in Congress. Something like this scenario may have happened with this goal, objective, and core strategy in the Department of Education's strategic plan:

- *Goal:* Ensure access to post-secondary education and lifelong learning.
- Objective: Post-secondary student aid delivery and program management is efficient, financially sound, and customerresponsive.
- Core Strategy: An integrated, accurate, and efficient student aid delivery system, including (in part) the supporting strategies to (1) integrate the multiple student aid databases based on student-level records and (2) increase the community's use of the Department of Education's web site as a principal source of financial aid information, programmatic and technical publications, and software.

In the final hypothetical example, an agency top-level manager realizes that, in order to fulfill the Department's mission, new investments in studies, people, and capital assets may be required. For example, the Department of Education's strategic plan includes the following:

- *Goal:* Help all students reach challenging academic standards so that they are prepared for responsible citizenship, further learning, and productive employment.
- *Objective:* Schools are strong, safe, disciplined, and drug-free.
- Core Strategy: Disseminate effective programs and strategies through technical assistance and training, conferences, publications, and use of technology.

Although the strategy is somewhat general, it provides the foundation for agency staff to propose innovative initiatives for funding in support of the goal and objective.

Given these examples, it is important to understand that these goals and objectives are focused on mission and programs (not acquisitions)—and further that, as is apparent in the student aid example, more than one acquisition may eventually be required to meet the goal or the objective.

3.4.2 Ensuring Measurability and Developing a Measurement Strategy

Before finalizing performance goals and objectives, it is important to ensure first that the goals and objectives are measurable, and second that the costs of measurement are not excessive.

There are no dictates that specify the type of performance measurement strategy agencies must use. This situation is fortunate, because performance requirements vary dramatically in their type and scope—and so should the measurement strategies. It is the performance requirement itself that should dictate the means of measurement.

OMB requires agencies in their Capital Asset Plan and Justification (Exhibit 300B) to "identify and discuss the performance-based management system that will be used to monitor the achievement of, or deviation from, baseline goals during the life cycle of the acquisition and the use of the asset." Further, agencies are to explain how the management and measurement system:

- Identifies the amount of planned work actually accomplished.
- Compares actual work accomplished against planned work and actual costs incurred by the contractor against planned costs.
- Establishes the deviation percentage from goals.

In addition, agencies are to explain whether it is an earned value management information system or other type of management information system. OMB describes earned value as follows.

- Earned value refers to a performancebased management system for establishing baseline cost, schedule, and performance goals for a capital project and measuring progress against the goals.
- Earned value is a management technique that relates resource planning to schedules and to technical cost and schedule requirements. All work is planned, budgeted, and scheduled in time-phased "planned value" increments constituting a cost and schedule measurement baseline.

There are two major objectives of an earned value system: (1) to encourage contractors to use effective internal cost and schedule management control systems, and (2) to enable the Government to rely on timely data produced by those systems for determining product-oriented contract status.

GAO provides this description and illustration of earned value: ²⁴

Earned value goes beyond the twodimensional approach of comparing budgeted costs to actuals. It attempts to compare the value of work accomplished during a given period with the work scheduled for that period. By using the value of work done as a basis for estimating the cost and time to complete, the earned value concept should alert program managers to potential problems sooner than expenditures alone can. To illustrate, assume a contract calls for 4 miles of railroad track to be laid in 4 weeks at a cost of \$4 million. After 3 weeks of work, only \$2 million has been spent. By analyzing planned versus actual expenditures, it appears the project is underrunning the estimated costs. However, an earned value analysis reveals that the project is in trouble because even though only \$2 million has been spent, only 1 mile of track has been laid; thus, the contract is only 25 percent complete. Based on the value of work done, the project will cost \$8 million (\$2 million to complete each mile of track) and the 4 miles of track will take a total of 12 weeks (3 weeks for each mile of track) to complete instead of the originally estimated 4 weeks.

Those who have a vested interest in earned value include:

- Program managers, who have overall management responsibility for acquisition programs.
- Contractors, who must adopt contractually required measurement and reporting re-

²⁴ GAO Report, Major Acquisitions: Significant Changes Underway in DOD's Earned Value Management Process, GAO/NSIAD-97-108

quirements and are responsible for successful execution of the contract.

 Overseers, such as acquisition executives, financial managers, contract surveillance officials, and cost estimators who are tasked with tracking and estimating program costs.

For earned value (or any other measurement system) to be effective, it must serve the basic needs of all these users.

Consequently, at this stage of business planning, the acquisition team should verify that the goals and objectives are measurable, develop a strategy for measurement, estimate the costs of measurement, and ensure that such costs are not excessive, given the requirement.

3.4.3 Establishing the Baseline

Once the objective is known, the next step is to establish the baseline, in terms of current assets, functionality, affordability, manageability, costs, risks, benefits, and especially performance. With regard to the latter, in the student aid web site example (cited in Section 3.4.1), it would be important to identify measures of current usage (such as "hits" on the home page and number of downloads) and frequency and causes of site inaccessibility. Other important factors would be (1) methods of outreach currently in use to make the web site known to the public and (2) "competing" sources (with strengths and weaknesses) that provide similar information.

This information is important for two reasons: (1) identifying the performance gap (the next step) and (2) measuring improvement in the future.

3.4.4 Identifying the Performance Gap and Forming the Acquisition Team

Once the goal, objective, and the intended and current levels of performance are known, the performance gap should be evident. This information helps characterize the need in functional and performance terms.

If the acquisition team has not yet been formed, it may be appropriate to do so, now that the performance need is known and the process of assessing alternatives is about to begin. Acquisition teams normally are composed of representatives from at least three or four key organizations: program, technical, contracting, and finance. These people are charged to work together toward a common goal: finding a solution to achieve the required performance.

3.5 ASSESSING ALTERNATIVES TO CAPITAL ASSETS

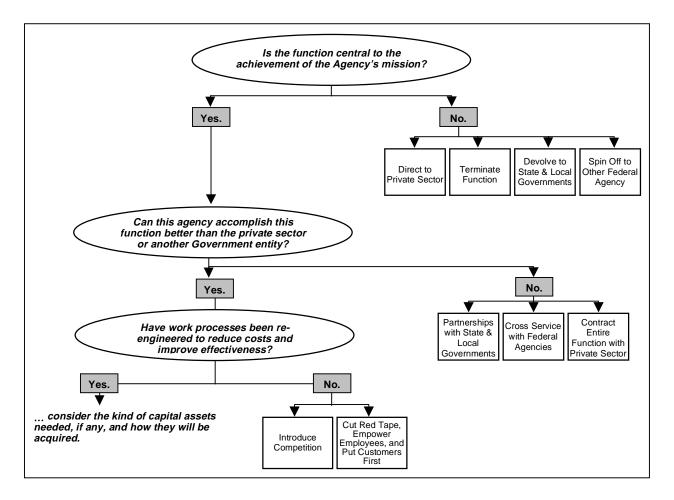
The team's search for a solution begins with considering alternatives to the procurement of capital assets (which includes information technology). This consideration is required by ITMRA's "three pesky questions." (See Exhibit 3-2.) Answering these questions (described in the sections that follow) determines if there will be an acquisition for information technology resources.

3.5.1 Determining if the Function Needs to Be Performed by the Federal Government

1. Does the investment in a major capital asset support core/priority mission functions that need to be performed by the Federal Government?

This question focuses on the issue of whether the function to be supported (by the potential acquisition) needs to be done at all. This question is important today, considering the Federal Government's efforts to downsize and streamline its operations. Given limited resources, an agency's emphasis needs to be on supporting functions that are central to the

²⁵ As described in Chapter 2, ITMRA's three pesky questions are incorporated as the first three of eight Raines' Rules and are considered during mission and business planning. The remainder of Raines' Rules are considered during acquisition planning.



DECISION TREE FOR ANALYZING AGENCY PROGRAMS AND INVESTMENTS

Exhibit 3-2

Source: OMB Capital Programming Guide

achievement of the agency's mission. Answering "yes" to this question verifies the mission-essential need.

If the function does not need to be performed by the agency, there are alternatives other than simply terminating the function. These include spinning the function off to another agency, devolving it to state or local governments, or privatizing²⁶ the function.

3.5.2 Determining Who Should Perform the Function

2. Does the investment need to be undertaken by the requesting agency because no alternative private sector or governmental source can better support the function?

If the function is central to the agency's mission, the acquisition team's next determination is whether the agency can accomplish the function better than the private sector or another government entity. Alternatives include cross-servicing through another government agency or partnering with state and local governments. Another alternative to the acquisition of capital assets may be to contract (out-

²⁶ Privatizing is the process of taking an established function performed by government employees, often utilizing government facilities, and transforming it into a private sector enterprise over which the government no longer has control. With privatization, the government no longer has responsibility for the quality, timeliness, and accuracy of the privatized activities.

source²⁷) the entire function to the private sector.

This step—looking outside the agency that has the need to determine the best means to meet that need—is often overlooked. This fact, however, has not been overlooked by Congress, which has indicated an intent to use reporting under GPRA to identify where functions should be combined across agencies. It is, therefore, important to consider such matters before being questioned about them.

3.5.3 Reengineering

3. Does the investment support work processes that have been simplified or otherwise redesigned to reduce costs, improve effectiveness, and make maximum use of commercial off-the-shelf technology?

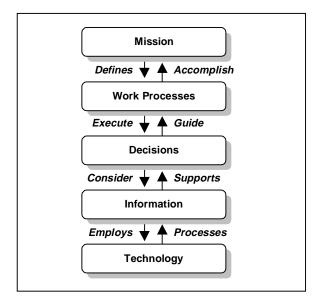
Reengineering is the third of the "three pesky questions" that precede the determination to invest in information technology resources. This third question requires that consideration be given to reengineering the functions and processes to be supported by the information technology in order to reduce costs and improve effectiveness. Management should reengineer business processes first, then search for acquisition alternatives. (It is possible, but perhaps not probable, that reengineering could eliminate the immediate requirement for information technology resources.)

Business process reengineering began in the private sector to help organizations rethink how they do their work, with the goal of cutting costs, improving service, and becoming world-class competitors. Although reengineering is often closely associated with in-

formation technology (see Exhibit 3-3) which can provide important capabilities that enable fundamental improvement in processes, it's important to consider the underlying work functions that are being automated. In the report called "Access America" from the National Performance Review and the Government Information Technology Services Board, Vice President Al Gore wrote:

The idea of reengineering through technology is critical. We don't want to automate the old worn processes of government. Information technology was and is the great enabler for reinvention. It allows us to rethink, in fundamental ways, how people work and how we serve customers.

GAO has suggested broad "screening criteria" that can be considered when determining if reengineering should be undertaken. These criteria are listed on the next page.



RELATIONSHIP OF MISSION AND WORK PROCESSES TO INFORMATION TECHNOLOGY

Exhibit 3-3

Source: GAO Business Process Reengineering Assessment Guide

²⁷ Outsourcing is the process of contracting with an external source to obtain goods or services that are currently being provided by government employees. Notwithstanding this service delivery approach, the government retains overall responsibility for the quality, timeliness, and accuracy of the outsourced activities.

- Is the process of strategic importance to the agency's mission?
- Does the process urgently need dramatic improvement in order to meet the agency's own performance goals?
- Is there a high level of customer and/or stakeholder dissatisfaction with the process (quality, timeliness, and cost)?
- Does the process have a long cycle time with many sequential activities, multiple hand-offs, checkpoints, and significant waiting time between work steps (e.g., processing a benefits claim)?
- Did benchmarking show that other organizations can do the same (or analogous) process much better?
- Is the process highly dependent on information, so that information technology might be used to speed the work flow, collapse work steps, and improve real-time decision-making?

3.6 PREPARING FOR INVESTMENT REVIEW AND BUDGETING

If (by answering the three pesky questions) the acquisition team has determined that (1) the function is central to the achievement of its mission, (2) the agency can accomplish the function better than another entity, and (3) the work processes have been reengineered, then the team can begin to prepare for the investment review and capital planning (budget) requirements. This step is the bridge between business planning and acquisition planning.

The development of the investment justification and capital plan must occur in concert with other aspects of acquisition planning, because information developed as part of acquisition planning is required for investment review and capital planning. This requirement can present an apparent dilemma. If the requirement is fully defined, alternatives have been assessed, benefits and costs have been

analyzed, an acquisition strategy has been developed, and a contract type has been selected—thereby permitting the information to be incorporated in the request for approval and funding—then the one-year budget cycle introduces a significant delay in the acquisition process. There is another apparent problem. For acquisitions that are performance-based and designed to elicit solutions from the private sector, benefits, costs, and alternatives may not be fully known until contractors' proposals are received—long after the acquisition has begun, and even longer after the budget submission.

However, which elements the acquisition team considers, and the timing and extent to which they are considered, depends on how the acquisition is to be structured. In sharp contrast to the grand-design plans of the 1970s and 1980s, in which extremely large acquisitions were planned and submitted for funding, the trend today is toward smaller, modularized plans. It is more prudent now to approach a large acquisition in phases, beginning with a funded acquisition planning stage (in which feasibility, market capabilities, alternatives, and benefit-costs are considered in detail), and including, for example, pilot systems or prototypes before full project (and funding) commitment. In such instances, lifecycle costs and contract strategies will not necessarily be fully developed.

It is clear, then, that the relationship is twoway. The acquisition strategy affects the information that will be included in investment review and budget submissions—and the requirements of the investment review and budget submission processes affect what is considered during acquisition planning. The acquisition team must be aware of these requirements before beginning to plan in detail for the acquisition.

3.6.1 Preparing for the Agency Investment Review Board

Each agency has a process through which requests for funding are considered and approved or disapproved. For information technology acquisitions, the processes are mandated by ITMRA and require that proposed major investments in information technology be evaluated and selected by an agency investment review board as priorities for funding. Only those that pass this review will be forwarded in the agency budget to OMB for consideration.

Therefore, it is important for the acquisition team to be aware of the criteria the review board will use to score and rank proposed agency information technology investments. Although each agency establishes its own criteria (see Exhibit 3-4 for an example), there are many common elements. The criteria may include:

- Business, mission, organizational, and stakeholder impact.
- Expected performance improvements and benefits.
- Benefit/cost analysis.
- Modularity of approach.
- Risk and schedule.
- Cost, performance, and schedule goals.

Being aware of these criteria can help determine just what must be done during acquisition planning to develop the information to meet the criteria.

3.6.2 Understanding Capital Planning Requirements

Capital asset planning for information technology investments is required by ITMRA and by OMB Circular A-11, Part 3, "Planning, Budgeting, and Acquisition of Capital Assets." Capital assets are defined in part as:

land, structures, equipment, and intellectual property (e.g., software) that are used by the Federal Government and have an estimated useful life of two years or more." (This includes information technology.)

OMB has said, "There is an unseverable connection between planning and budgeting." This connection is one of establishing the need and objectives with the resources to accomplish them. This unseverable connection is illustrated by OMB's budget-based requirement for a capital asset plan and justification which applies to "major acquisitions," defined as:

...those [acquisitions] requiring special management attention because of their importance to the agency mission; high development, operating, or maintenance costs; high risk; high return; or their significant role in the administration of agency programs, finances, property, or other resources.

Among the elements of a capital asset plan and justification, referred to as Exhibit 300B, are a "full justification for the asset and the cost of the asset," including "a clear statement of how the asset will help the agency meet the agency mission, accomplish its long-term strategic goals and objectives, and adhere to the annual performance plan being developed under GPRA." Also included are the acquisition's cost, performance, and schedule goals.

Capital planning requires incorporation of some of the elements of acquisition planning, described in the next chapter. (Remember that acquisition is not a strictly linear process.) For example, the 300B indicates that the following elements "should" be addressed: benefit-cost analysis, program management plan, and contract strategy. As indicated previously, which elements are considered (and the extent to which they are considered) depends on how the acquisition is to be structured.

| | Capital Asset (1 thru n) | Weight |
|---|--|--------------------------------------|
| DECISION CRITERIA | SCORING | % |
| Overall Risk Factors | | Weights for Risks $\Sigma = 100\%$ |
| Investment Size – How large is the proposed investment, especially in comparison to the overall budget? | 1 5 10 Large Small | 40 |
| Project Longevity – Do projects adopt a modular approach that combines controlled systems development with rapid prototyping techniques? Are projects as narrow in scope and brief in duration as possible to reduce risk by identifying problems early and focusing on projected versus realized results? | 1 5 10 Non-modular Modular | 30 |
| Technical Risk – How will proposed assets be integrated into existing ones? Will proposed investment take advantage of Commercially Available and Non-Developmental Items? How will the complexity of the asset's design affect the development of the project? | 1 5 10 Experimental Established Custom Industry Standard | 30 |
| Sum of Overall Risk Factors | | |
| Overall Return Factors | | Weights for Returns $\Sigma = 100\%$ |
| Business Impact or Mission Effectiveness – How will the asset contribute toward improvement in organizational performance in specific outcome-oriented terms? | 1 5 10 Low High | 25 |
| Customer Needs – How well does the asset address identified internal and/or external customer needs and demands for increased service quality and timeliness or reductions in costs? | 1510 Low High | 15 |
| Quantitative Analysis – Is the benefit-cost analysis reliable and technically sound? | 1510 Risky Known estimates benefit | 20 |
| Organizational Impact – How broadly will the asset affect the organization (e.g., the number of offices, users, work processes, and other systems)? | 1 5 10 Low High | 25 |
| Expected Improvement – Is the asset to be used to support, maintain, or enhance operational systems and processes (tactical) or is it designed to improve future capability (strategic)? Are any projects required by law, court ruling, Presidential directives, etc.? Is the project required to maintain critical operations—beneficiary checks, human safety, etc.—at a minimal operating level? What is the expected magnitude of the performance improvement expected from the asset? | 1510 Tactical: Strategic: Low High | 15 |
| Sum of Overall Return Factors | | |
| Total Risk Adjusted Score = Weighted Sum of Overall Risk Factors + Weighted Sum of Overall Return Factors | | |

EXAMPLE OF CRITERIA AND SCORING PROCESS TO RANK PROPOSED CAPITAL ASSETS

Exhibit 3-4

Source: OMB Capital Programming Guide

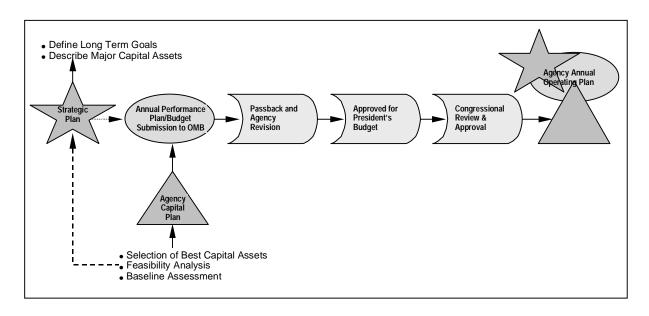
Proposed acquisitions that are selected by the agency investment review board for inclusion in its "investment portfolio" are forwarded to OMB and enter the budget process, illustrated in Exhibit 3-5. The budgeting phase overlaps the planning phase, including the steps involved in acquisition planning which are described in the next chapter.

3.7 CONCLUSION

At the conclusion of the business planning phase, the acquisition team will understand what is needed, how it will enhance the agency's mission performance, and who should do it. To ensure that the agency is not automating inefficient processes, the team will have screened the function for potential business process improvement. Additionally, the requirements of the agency investment review board and the capital planning and budgeting process will be known and serve as the bridge to acquisition planning.

Perhaps most importantly, the acquisition team will also have a functional description of its need in terms of the intended result—and, with this foundation, will be able to demonstrate clearly how an individual acquisition's performance objectives assist in achieving the agency's mission and goals. This foundation will be in terms of functionality and objectives. For example, "I need to improve the efficiency, economy, and customerresponsiveness of the student aid delivery system."

As this performance mandate is taken into acquisition planning, it will be broken down or tailored specifically to the acquisition, addressing both the questions of responsibility for performance and an appropriate level of detail for respective contractors. The table on the next page illustrates this point. (Note that some objectives and measures meet more than one statutory mandate.)



THE BUDGET PHASE

Exhibit 3-5

Source: OMB Capital Programming Guide

Finally, these business planning processes will enable the acquisition team to answer the first three (pesky) of eight questions of Raines' Rules, which are essential to OMB's investment review and funding approval. The

remaining five questions will be answered by the steps involved in acquisition planning. Now that the agency can answer the questions related to what is needed, it is time to address how to acquire it.

| GPRA—Agency Performance Goal, Objective, and Strategy | ITMRA—Program Performance Measures | FASA—Acquisition Cost, Performance, and Schedule Goals | | |
|---|---|---|--|--|
| Goal: Ensure access to post-secondary education and lifelong learning. | | | | |
| Objective: Post secondary student aid delivery and program management is efficient, financially sound, and customer-responsive. | | | | |
| Customer satisfaction ratings among stud ondary institutions participating in the stud to 90% by 2001. | | | | |
| Evaluation of contracts for major OPE fina receiving "better than fully successful" per | | | | |
| By September 1998, ED will have a complete system architecture developed for the delivery of Federal student financial aid; implementing this design will improve customer service and increase control over Federal costs. | | | | |
| | Reduce by at least a third the amount of hard copies of materials that now must be printed and mailed. | | | |
| | Enable applicants for Federal aid filing electronically to have their eligibility determined in four days, cutting in half the current processing time. | | | |
| Core Strategy: An integrated, accurate, and efficient student aid delivery system, including (in part) the supporting strategy to increase the community's use of the Department of Education's web site as a principal source of financial aid information, programmatic and technical publications, and software. | | | | |
| | | Cost Goal: \$nnn,nnn | | |

CHAPTER 4. ACQUISITION PLANNING

Acquisition planning, as defined by Federal Acquisition Regulation (FAR) 7.101, is "the process by which the efforts of all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the agency need in a timely manner and at a reasonable cost. It includes developing the overall strategy for managing the acquisition."

One important effect of acquisition reform is to give agencies more contractual sources against which orders may be placed—such as more flexible Federal Supply Schedule conand other established contracts tracts (GWACs and multiagency contracts). However, acquisition reform has not reduced or eliminated an agency's responsibility to plan. In fact, the opposite is true. Agencies must establish cost, performance, and schedule goals for each acquisition (as discussed in the preceding chapter); evaluate alternatives; assess costs and benefits; and identify and manage risks. Regardless of the type of contract vehicle, acquisitions must be thoroughly planned.

4.1 PURPOSE OF CHAPTER

This chapter describes the studies and analyses that agencies undertake to make informed, reasonable decisions about information technology acquisitions. These studies and analyses may be formally documented or informally conducted, but they are generally required by law, regulation, and policy. They help to develop a comprehensive plan to mitigate and manage the risks inherent in any information technology acquisition. Often, the studies are developed somewhat concurrently, with information from one analysis helping to refine the information in others. Acquisition planning helps to evolve the acquisition strat-

egy as more information is gathered and detail is developed.

4.2 OVERVIEW OF CHAPTER

Once business planning has established a mission need for the acquisition and the need for the agency to fulfill it, acquisition planning focuses on analyzing and developing the strategies for the acquisition that serve to mitigate and manage risk. This process results in a comprehensive acquisition plan that describes the actions the team will take to fulfill the agency's need in a timely manner and at a reasonable cost. (The level of detail, documentation, and formality depends on the size, scope, and criticality of the acquisition.) The studies and analyses addressed in this chapter are as follows:

- Functional Statement of Need
- Market Research
- Feasibility Study
- Requirements Analysis
- Alternatives Analysis
- Benefit-Cost Analysis
- Independent Government Cost Estimate
- Risk Management Plan
- Acquisition Plan
- Implementation Plan

Each of these studies or analyses does not have to be a separate, free-standing document. They can be, and frequently are, combined. For example, the functional statement of need and the requirements analysis are often incorporated in a single document. The same is frequently true with the alternatives analysis and benefit-cost analysis. The form of the

document is less important than the analysis, decisions, and actions taken.

4.3 FUNCTIONAL STATEMENT OF NEED

One of the outcomes of business planning should be a fundamental understanding of the agency's needs in functional terms. Depending on the size, scope, importance, or complexity of the acquisition, it may be appropriate to document the functional requirement in detail. This effort typically involves at least three aspects:

- Statement of Functional and Performance Need
- Statement of Current Resources and Performance
- Statement of Needed Resources and Performance

The statement of functional and performance need reflects the requirement that must be met. As the name implies, the statement of current resources and performance describes the current environment. Comparing the statement of current resources (or functionality or performance) with the functional and performance need is the basis for the statement of needed resources (or functionality or performance). This difference is often referred to as the performance gap.

In some instances, a functional statement of need is nearly all that is necessary to define the requirement, especially in the early stages of a modular acquisition. For example, suppose the functional need to meet a performance goal under GPRA is for a single integrated source of student aid information—but the statement of current resources indicates multiple stand-alone databases and a lack of agency professional staff to further analyze the technical requirements. In this case, the statement of needed resources might be an assessment of existing databases, market survey, and analysis of alternatives for integration of those databases. The first acquisition

in this case might be a performance-based statement of work to acquire support services to conduct the research and analysis.

In most cases, however, the functional statement of need is merely the first stage of the analysis of requirements. By stating the need first in functional and performance terms, the agency does not limit its potential solutions before market research begins.

4.4 MARKET RESEARCH

Market research is the continuous process of collecting information to maximize reliance on the commercial marketplace and to benefit from its capabilities, technologies, and competitive forces in meeting an agency need. Market research formally begins for an acquisition when there is "a description of the Government's needs stated in terms sufficient to allow conduct of market research". but not so specific that technological alternatives (and potential competitiveness) are constrained. According to FAR Part 10, market research is conducted:

- *Before* developing new requirements documents for an acquisition.
- *Before* soliciting offers for acquisitions with an estimated value in excess of the simplified acquisition threshold (defined in FAR Part 2, currently \$100,000).
- Before soliciting offers for acquisitions with an estimated value less than the simplified acquisition threshold when adequate information is not available and the circumstances justify the cost of market research.

Contact with vendors and suppliers for purposes of market research is now encouraged.²⁹ In fact, the FAR specifically promotes the exchange of information "among all interested

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²⁸ FAR 10.002(a)

²⁹ In the past, some contracting activities prohibited contacting vendors prior to solicitation release.

parties, from the earliest identification of a requirement through receipt of proposals."³⁰ The limitations that apply are that prospective contractors be treated fairly and impartially and that standards of procurement integrity³¹ be maintained.

Market research is useful at various stages in the acquisition process. (See Exhibit 4-1.) Market research can be a continuing, ongoing activity that supports an agency's strategic planning. In such instances, the focus of the research is often on trends and technological advancements that may affect an agency's long-term plans and strategies. This type of research is sometimes referred to as market surveillance.

| | | General Capabilities | | |
|--|-------------------------|----------------------------|-----------------------------|---|
| | | General Capabilities | | |
| | | Technologies | | Past Performance |
| Areas of Market Research Focus (NOT ALL- INCLUSIVE) Trends Emerging Technology Estimating Future Costs | New Supplies | Suppliers | Product Characteristics | Reference Checks |
| | Competitiveness | Product Differentiation | Contract Modifications | |
| | Trends | Cost Drivers | Commercial Practices | Technical Insertion |
| | | Support Capabilities | Industry Standards | Current Market Costs |
| | Laws and Regulations | Cost Estimates | Exercising Options | |
| | STRATEGIC PLANNING | ACQUISITION PLANNING | SOLICITATION DEVELOPMENT | CONTRACT AWARD AND ADMINISTRATION |

ITERATIVE MARKET RESEARCH ACTIVITIES Exhibit 4-1

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³⁰ FAR 15.201(a)

³¹ FAR 3.104

Market research related to a specific acquisition helps during the planning stage to determine the ability of the marketplace to meet the need with existing (commercial) items of supply. It is important to do such research early, because sometimes agency requirements can be modified slightly to conform to available commercial products—at large savings over design-to-specification requirements. Subsequent market research can support the development of a solicitation that responds to current market conditions and practices, such as warranties, financing, and maintenance.

Finally, market research is used before contract award to check references and pastperformance information and after contract award to monitor the contract's continued acceptability compared to current market offerings and prices. Taken together, these types of market research provide valuable information regarding existing products, current and potential suppliers, desirable technology, marketplace competition, and varying levels of product performance and quality.

Because the range of information addressed by market research is so broad—covering technical, cost, and contractual information responsibility properly belongs to members of the acquisition team, not to the program or technical office alone. This shared responsibility requires that team activities be planned in advance to address the essential requirements and timing of the research, assignment of market research elements to individuals, standard methods of contacting potential suppliers, and standard information to be given and obtained from potential suppliers.

4.4.1 Purpose

The purpose of market research is to begin to develop the most suitable approach to acquiring needed supplies and services. This approach includes (1) ascertaining the availability of commercial and nondevelopmental

items that meet the need and (2) identifying standard commercial practices. This information will allow the agency to take advantage of the competitive marketplace.

The mandate for reliance on commercial and nondevelopmental items stems from FASA. FASA defined these terms broadly³² and created a statutory preference for their acquisition by Federal agencies. Nonetheless, there is also a preference (before initiating new acquisitions) for using existing equipment (available for reassignment or use within the agency) and preferred sources of supply (as detailed in FAR Part 8 and discussed in the next chapter). Therefore, market research should consider both Government and industry sources.

4.4.2 Scope

Market research involves obtaining information related to acquisitions. FAR Part 10 specifically requires agencies to determine:

- Sources capable of satisfying the requirements and the size and status of those sources.
- Availability and cost of commercial or nondevelopmental items that meet or could be modified to meet the requirements—or could meet the requirements if the requirements were reasonably and acceptably modified—or could be incorporated at the component level in developmental requirements.
- Standard or customary practices of firms engaged in producing, distributing, and supporting commercial items, such as terms for warranties, buyer financing, maintenance and packaging, and marking—and for customizing, modifying or tailoring of items to meet customer needs.
- Availability of items that use recovered materials or are energy-efficient.

³² See Appendix A

- Requirements of laws and regulations unique to the item being acquired.
- Distribution and support capabilities of potential suppliers.

Other information that may be pertinent includes such areas as extent and nature of competition, customer references, performance information, market prices and pricing trends, acquisition histories, other organizations' experiences in acquiring the same or similar items, effect of supply and demand or other factors on acquisition timing or product pricing, speed of change in the marketplace, production or delivery lead time, and quantity discounts. In addition, the ability of the market to respond to the total requirement, modularization of the requirement (consecutive awards or orders to one or more offerors), segmentation of the requirement (concurrent awards to multiple offerors), and the effect of "bundling" or acquisition approach on small businesses are also important aspects of market research.

The extent of market research will vary, depending on such factors as type of supply, urgency of the requirement, estimated dollar value, complexity, and past experience.

4.4.3 Sources of Information

There are many types and sources of information for conducting market research. Techniques for conducting market research may include any or all of the following:

- Contacting knowledgeable individuals in Government and industry regarding market capabilities to meet requirements.
- Reviewing the results of recent market research undertaken to meet similar or identical requirements.
- Publishing formal requests for information in appropriate technical or scientific journals, business publications, or the *Commerce Business Daily*.

- Querying Government databases that provide information relevant to agency acquisitions.
- Participating in interactive, on-line communication among industry, acquisition personnel, and customers.
- Attending trade shows and receiving capability and "futures" briefings from original equipment manufacturers and developers.
- Obtaining source lists of similar items from other agencies, contracting activities, trade associations, or other sources.
- Reviewing catalogs and other generally available product literature published by manufacturers, distributors, and dealers (or available on-line).
- Reviewing Government-managed web sites that provide information on products and pricing (often available from existing Government contracts).³³
- Conducting interchange meetings or holding presolicitation conferences to involve potential offerors early in the acquisition process.
- Releasing to industry information on planned acquisitions and draft solicitations (which often prompts contractors to submit comments and information on products and capabilities).
- Using technical analysis publications.
- Using the Internet to post requests for information or to search for technical information.

³³ Examples include *GSA Advantage!* (available through http://www.fss.gsa.gov/) and the Commercial Advocates Forum (http://www.cadv.org/cadv.htm). The latter has a link to DoD's Internet market research tool I-Mart (http://www.imart.org) that can be used to locate potential sources by industry, product description, Federal Supply Classification, or Federal Supply Group.

4.4.4 Establishing Feasibility

One of the main purposes of market research is to establish feasibility. Sometimes called a feasibility study, this part of market research determines if technology exists that can satisfy the requirement in three key aspects: technical, operational, and financial.

Technical feasibility refers to the capability of current technology and methods of operation in meeting user requirements. Technical feasibility considers the state of the technology—for example, is the technology "leading edge" (with commensurate risk) or is the technology "mature" (with associated industry standards and lesser risk)? Operational feasibility refers to the ability of the enhanced system to fit the operational pattern and resources of the organization. Financial feasibility refers to the ability of the organization to fund the acquisition.

OMB addresses feasibility in terms of risk.³⁴ Agencies are now facing this key issue: What is the technical feasibility and risk of the project? Risk may be in terms such as maturity of the market, size and scale of project, and anticipated acceptability of the technological solution to customers and stakeholders. So it is important to consider technical feasibility in today's terms—in terms of risk. This consideration may be addressed independently or as part of the market research and analysis of alternatives.

4.4.5 Using the Information

The results of the market research should be documented in a manner appropriate to the size and complexity of the acquisition. It is important to keep in mind two factors. First, the results of the market research will be used in subsequent acquisition documents, such as the requirements analysis, analysis of alternatives, and solicitation document. Second, market research is necessary to define the requirement and the acquisition, but it should

not be applied in a manner that presupposes a solution or unduly limits competition. That application would limit the effectiveness of the competitive marketplace.

4.5 REQUIREMENTS ANALYSIS

There is no prescribed Governmentwide standard form or format for a requirements analysis, nor is there a list of mandated topics that the analysis must address. This lack of an official standard can be both an advantage and a disadvantage. It is an advantage because, too frequently in the past, suggested formats "required" that specific topics be addressed (without consideration of their applicability), yet failed to mention other topics that might be absolutely essential to the specific acquisition. It is a disadvantage because absence of such guidance places a great deal of responsibility on the acquisition team to decide what needs to be analyzed, considered, evaluated, and addressed with regard to the requirement at hand and its ramifications.

4.5.1 Purpose

The purpose of a requirements analysis is to determine and document the agency's need for resources. This information establishes the basis on which to analyze alternatives for meeting the needs—and forms the foundation for the entire acquisition. The statement of requirements is important even after contract award, since it is the basis for establishing contract scope and for determining, during contract performance, if the agency's needs have been or are being met.

In a sense, the analysis of requirements actually begins during business planning, with consideration of the agency's mission, performance, and functional needs. Information gathered during market research allows the analysis to be refined and detailed in the requirements analysis; with the ultimate objective of stating the requirement in terms of a specification, statement of work, or task or delivery order description. Defining a re-

³⁴ OMB Circular A-11, Appendix 300A, "Planning, Budgeting, and Acquisition of Capital Assets" (1998)

quirement does not begin with or end with the requirements analysis.

4.5.2 Policy

Although there is no prescribed form or format, FAR Part 11 does establish policies for describing agency needs. These include the following guidelines.

- Use market research to specify needs in a manner that (1) promotes full and open competition (or maximum practicable competition when using simplified acquisition procedures)³⁵ and (2) limits restrictive provisions or conditions to those required to satisfy agency needs.
- State requirements in terms of functions to be performed, performance required, or essential physical characteristics.
- Define or modify requirements so that offerors are "encouraged" to offer existing commercial items—or, if no such items are available, nondevelopmental items.
- Consider environmental objectives (use of recovered materials, environmentally preferable products, and energy-efficient products) described in FAR Part 23.
- Do not describe needs in terms that require a particular brand name, product, or feature of a product, peculiar to one manufacturer.

4.5.3 Order of Precedence and Performance-Based Requirements Documents

FAR Part 11 also establishes an order of preference for the type of requirements document an agency should use or develop. Regardless of the type of commodity being acquired, FAR 11.101 authorizes agencies to "select from existing requirements documents, modify or combine existing requirements docu-

ments, or create new requirements documents to meet agency needs," in the following order of preference:

- Documents mandated for use by law.
- Performance-oriented documents.
- Detailed design-oriented documents.
- Standards, specifications, and related Government-issued publications.

Agencies can cite this authority to develop a "standard" requirements document for multiple agency acquisitions.

Because there are no Governmentwide standardized requirements documents required by law (the first regulatory priority) that relate to information technology, the first priority for practical purposes for information technology is use of performance-oriented documents that describe the requirement in terms of functions to be performed and performance required, rather than detailed physical specifications and characteristics. This requirement for functionally oriented performance-based contracting is underscored by OFPP Policy Letter 91-2, "Service Contracting," and by ITMRA (as addressed in Chapter 2).

4.5.4 Size, Scope, and Documentation

The size and scope of the requirements analysis—and the extent of documentation of the analysis—should be dictated by the size, scope, cost, and criticality of the requirement.

4.5.5 System Life

As requirements are assessed, the acquisition team should project the system life of the resources to be acquired. This critical determination can have significant ramifications, as evidenced by the Year 2000 problem. Factors that affect the determination of system life include the "shelf life" of the technology, the rate at which technology is projected to change in the future, the anticipated length of time current technology will satisfy user

³⁵ Generally speaking, acquisitions under \$100,000 covered by FAR Part 13 and addressed in Chapter 5 of this guide.

needs, the stability of the requirements, timerelated ability of the organization to absorb and fully utilize new resources, the probability of continued support (on-call support, software, maintenance, and spare parts), and time required before the follow-on acquisition can be awarded.

The system life establishes the period of time used in the benefit-cost analysis, proposal evaluation, and schedule for the follow-on acquisition.

4.5.6 Analysis of Requirements

The analysis of requirements is a process through which the agency's needs are identified in terms of the functions to be performed and a generic-level statement of the resources required to support the functions. Because performance and functional requirements were first considered during business and mission planning, the first step in the analysis of requirements is documenting what has been established thus far, by incorporating the following fundamental information:

- Mission need
- Functional and performance need

4.5.6.1 Current Resources

The requirements analysis should also include an assessment of current resources. This assessment actually begins during mission and business planning with a preliminary analysis of the "baseline."

Among the key considerations are two categories of current information technology resources: (1) those resources that will be replaced by the acquisition and (2) those resources that must interface with the new equipment. However, the assessment of current resources is not limited to equipment and software. If the requirement relates to a need for information (data) not currently available, then the statement of current resources would include current information availability.

Other resources may be relevant to the acquisition at hand—for example, current facilities, power and utilities, security, users, and support staff—if those resources will be replaced, augmented, or affected by the planned acquisition.

4.5.6.2 Needed Resources

The requirements analysis should also address, at a very high level, the generic types of resources that are required to meet the functional and performance needs. It is important to keep the assessment at a high level so as not to constrain the number of possible solutions or limit the competitiveness of the acquisition.

The statement of requirements that results from the requirements analysis is the basis for the analysis of alternatives. Therefore, it is *not* the purpose of a requirements analysis to describe a technical solution or to define an architecture fully—but instead to make a general statement of requirements so that alternatives can be analyzed.

The range of consideration of the analysis of requirements depends on the acquisition itself. If the requirement is new, then the requirements analysis may be described in fully functional terms: for example, establish a system for electronic dissemination of agency information products. However, if the requirement is to improve an existing system, then stating a need in terms of resources rather than functionality may be more appropriate: for example, upgrade processing speed and capability of employees' personal computers.

Although each acquisition differs, the fifth question of Raines' Rules establishes several important considerations that should be addressed during the requirements analysis.

Is the proposed acquisition

... {consistent with Federal, agency, and bureau information architectures

which: integrate agency work processes and information flows with technology to achieve the agency's strategic goals; reflect the agency's technology vision and year 2000 compliance plan; and specify standards that enable information exchange and resource sharing, while retaining flexibility in the choice of suppliers and in the design of local work processes?

Other considerations that the acquisition team may need to address (at least at a preliminary level) are listed below.

- Programmatic functions
- Current and future workload
- Aggregation of requirements
- Information needs
- Processing and data flow
- Interfaces with existing resources
- Conformance with agency architecture
- Voluntary industry standards
- Security and privacy requirements
- Contingency, back-up, and disaster recovery requirements
- Accessibility requirements for individuals with disabilities
- Space and environmental requirements
- Current and projected support staff
- Skill base of support staff
- Training
- Records management considerations

The nature of the acquisition dictates which issues the acquisition team should consider during the requirements analysis. There may be other factors as well.

4.5.6.3 Projected Effect of Requirements on Competition

It is a good idea to consider the effect of the developing statement of requirements on competition. Taken to the extreme, *any* requirement limits the ability of some offerors to fulfill the need. However, this fact does not necessarily mean that acquisitions that are based on legitimate requirements preclude full and open competition and require written justification. What is critical in assessing the effect of requirements on competition is determining that the need is truly an agency requirement and that it does not unduly restrict competition.

FAR 11.104 indicates that:

Agency requirements shall not be written so as to require a particular brand-name, product, or a feature of a product, peculiar to one manufacturer, thereby precluding consideration of a product manufactured by another company, unless—

- (a) The particular brand-name, product, or feature is essential to the Government's requirements, and market research indicates other companies' similar products, or products lacking the particular feature, do not meet, or cannot be modified to meet, the agency's needs;
- (b) The authority to contract without providing for full and open competition is supported by the required justifications and approvals (see 6.302-1); and
- (c) The basis for not providing for maximum practicable competition is documented in the file when the acquisition is awarded using simplified acquisition procedures.

Competition requirements are discussed more fully in Chapter 5.

4.5.7 Statement of Requirements

When the requirements have been analyzed, the acquisition team documents the results in a statement of requirements, which may also be called statement of needs, needs assessment, or requirements document. Regardless of its name, the document should answer the following questions:

- What is the mission?
- What is the functional and performance need?
- What is the current system and how effective is it?
- What is the shortfall?
- What resources are required?
- What is needed in the future?

The statement of requirements that results from the requirements analysis is the basis for the alternatives analysis. Stating the requirement in terms of functions, performance, or generic resources allows consideration of the broadest possible range of alternatives.

4.6 ALTERNATIVES ANALYSIS

An alternatives analysis is conducted to consider the range of alternatives that could be employed to meet the requirement. The larger the acquisition in terms of size, scope, cost, and criticality, the more alternatives should be considered. Of the range of alternatives identified, only those likely to meet the functional and performance objectives with a manageable level of risk will be further analyzed in the ensuing benefit-cost analysis. As is true for the requirements analysis, there is no prescribed form or format for an alternatives analysis. The requirement itself must dictate what the acquisition team should consider.

It is important to understand, especially in today's acquisition environment, that the alternatives that are considered during acquisition planning often include both technological and acquisition alternatives. Technological alternatives (addressed in general in this chapter) may include, for example, different types of architectures or degrees of centralization or decentralization of processing. Acquisition alternatives (addressed in more detail in Chapter 5) should consider, at the most fundamental level, various degrees of reliance on the private sector. For example, the need for desktop computing can be solved in various ways:

- Purchasing commercial off-the-shelf (COTS) products and using Government staff to install, integrate, and manage the resources.
- Establishing separate contracts, one for COTS products and the other for installation, integration, and management services.
- Establishing a single contract for COTS products and supporting services.
- Outsourcing the entire requirement using a "seat management" approach.³⁶

Acquisition alternatives may also include options that relate to acquisition strategy, such as pursuing a "grand design," single-solution approach (generally not recommended); developing a modular approach; or conducting a pilot or prototype before committing to further acquisitions. Depending on the nature of the requirement, the appropriate acquisition alternative may be clear or may require further analysis.

Acquisition alternatives also include contracting techniques (such as ordering from an existing contract or issuing a Request for Proposals) and contracting sources (such as FSS contracts, GWAC's, multiagency contracts).

³⁶ GSA and NASA have both established multiagency contracts against which agencies can order products and services to provide desktop computing. See http://www.gsa.gov/fedcac/seat.html/ and http://outsource.gsfc.NASA.gov/.

These types of acquisition alternatives are addressed in more detail in Chapter 5 (but the fundamental method of analysis follows). Again, depending on the nature of the requirement, the appropriate acquisition technique or contractual source may be clear or may require further analysis. For example, further analysis might be required if the agency is trying to decide whether to rely on an existing contract which meets 90 percent of the currently described need—or to issue a Request for Proposal for a fully customized solution. It might be a better choice to choose the alternative with less functionality, but also less risk, cost, and time to implement.

4.6.1 Constraints and Assumptions

The first step in conducting an alternatives analysis is to establish the constraints and assumptions that apply.

Constraints are factors that lie outside, but have a direct effect on, the system design effort. Constraints may be:

- Laws and regulations for example, legislative or regulatory requirements may limit or mandate technical or acquisition approaches.
- Acquisition Policy for example, an agency's strategy may be to meet Governmentwide policies for reliance on the private sector (outsourcing) and small business.
- *Technological* for example, new equipment must be compatible with existing equipment.
- Socio-political for example, the head of the agency mandates that all public assistance information technology functions be combined and managed by a common data base management system.
- *Financial* for example, proposed development and implementation costs must remain within a specified budget.

Operational — for example, space, staffing levels, skill mix, and capability and competence factors may limit system options.

System constraints should not be used artificially to restrict or direct the acquisition. The objective is to identify the best alternatives to meet the need, not to fabricate and impose constraints that limit the system alternatives.

Assumptions are factors predicted to apply to the program or systems project. For example, one assumption is the project's operational or system life—the time required to plan, design, acquire, and implement the system plus its operational life. This factor is predicted during the requirements analysis and becomes a critical assumption during the alternatives analysis and the subsequent benefit-cost analysis. This assumption directly affects technical alternatives, in that the alternatives should be capable of meeting projected needs (including forecasted growth) over the system life. The assumption also affects the period of time for comparison of costs and benefits of system alternatives and, for all practical purposes, sets the range of time within which the system's return on investment is proven. The effective use of market research helps in making valid assumptions.

Four rules apply to making assumptions:

- Make assumptions when essential information cannot be determined or where the analysis is critically dependent on certain factors, conditions, or future events.
- State assumptions realistically and in precise terms.
- Include only assumptions that will affect the analysis.
- Document the logic underlying the assumption in the event its soundness needs to be reassessed.

In addition to system life, other common assumptions relate to project schedule and estimated future workloads

4.6.2 Analyzing Alternatives

The first step in analyzing alternatives is to survey the possibilities and to consider the wide range of alternatives that may be available. This step requires the acquisition team to identify possibilities and eliminate those that are not technically or operationally feasible. Therefore, alternatives (including the status quo) are assessed against considerations of feasibility and risk.

In the past, the purpose of the alternatives analysis was to focus on technical alternatives and eliminate those that would not fulfill the need, would fulfill the need less effectively, or would fulfill the need but at a higher projected cost than other alternatives. This was one step in developing detailed technical specifications that described system requirements down to storage size and processing speed.

However, the preferred approach today is to state the requirement in performance-based terms, leaving the consideration of technical alternatives to industry. In such cases, the alternatives being considered may deal more with acquisition approach (such as modular) rather than technical approach.

Again, the acquisition dictates what is considered, with new requirements more likely to be described functionally and upgrades or improvements to existing systems likely to include some technological considerations. Consider, for example, the student aid example that requires the integration of multiple databases. The alternatives might include developing interface software that functionally integrates the underlying data bases, selecting one of the existing data bases as the "master" and phasing in the records from the other data bases, or acquiring new data base software and phasing in all records from the current systems. All of these alternatives could conceivably achieve

the performance objective of a single student aid system.

At this stage, all identified alternatives should be judged capable of meeting the established objectives within the system constraints. Note that these initial alternatives will be further eliminated over time, depending on factors such as risk, costs and benefits, and competition to determine the most favorable alternative.

4.6.3 Assessing Risk and Effect

Under ITMRA, agencies are to determine "whether to undertake a particular investment in information systems" based on "the quantitatively expressed projected net, risk-adjusted return on investment and specific quantitative and qualitative criteria for comparing and prioritizing alternative information systems investment projects." One way to adjust for risk is to consider and eliminate alternatives on the basis of risk and effect.

Among the most basic elements of risk are cost risk, schedule risk, and technical risk. In essence, the bigger the acquisition, the more protracted the schedule, the longer the system life, and the more unproven the technology—the higher the risk. Other elements of risk include:

- Program risk effects on current program operations and new program requirements.
- Equipment risk effects on current systems, including such factors as compatibility, obsolescence, maintainability, availability, expandability, reliability, and flexibility.
- *Software risk* effects on existing applications and support software related to compatibility, conversion, or modification.
- *Information risk* effects on information including accessibility, availability, format, conversion, and security and privacy.

- Organizational risk effects on organization, schedule, accountability, personnel, and skill requirements.
- Operational risk effects on operations, such as user and operating center procedures; user/operator and other relationships; source data processing; data entry procedures; information storage, retention, and retrieval requirements; privacy; output reporting, media, and schedules; system failure and recovery procedures; and security and back-up requirements.
- Developmental risk effects of development activity on current computing, staffing (including users), space, system security, and contractual support resources.
- *Space and facility risk* effects on space, both in terms of square footage and necessary modifications to facilities.
- *Cost risk* effects on developmental or operational costs and financial factors that may influence the development, design, and operation of the proposed system.
- Acquisition risk effects of strategy on acquisition size, visibility, and competitive response.

With regard to the latter, specific consideration should be given to modular contracting.

4.6.4 Ranking Alternatives

If there are more than three or four alternatives, the acquisition team should rank alternatives so that only those most likely to achieve the system objectives efficiently, effectively, and economically are analyzed during the benefit-cost analysis. The primary criteria for ranking the alternatives should be:

- Projected capability of the alternative to meet the mission, functional, and performance needs.
- Degree of modularity.
- Projected risk.

The acquisition team can select other criteria for ranking the alternatives that may be dictated by the specific acquisition. Examples include alternatives that:

- Retain a centralized information repository for reasons of security.
- Ensure high levels of availability, reliability, maintainability, or expandability.
- Require minimal physical facility changes.
- Achieve desired distribution of processing to minimize point-of-entry delays.
- Achieve redundancy to guard against total system outages.
- Limit development time.

Once the acquisition team has isolated several viable alternatives—one of which is the status quo—it can proceed with the benefit-cost determination.

4.7 BENEFIT-COST ANALYSIS

A benefit-cost analysis is the process of projecting benefits and costs for each viable alternative identified by the alternatives analysis in order to choose the most cost-beneficial approach to meet the mission and performance need. The benefit-cost analysis provides the basis to respond to the fourth question of Raines' Rules: Does the acquisition demonstrate a projected return on the investment that is clearly equal to or better than alternative uses of available public resources?

Other purposes of the benefit-cost analysis are to:

- Document estimated costs and benefits for feasible alternatives.
- Compare costs and benefits for each alternative
- Determine which alternative is the most cost-beneficial, delivering the best return for the investment.

Provide a baseline against which to measure actual costs and benefits.

Subsequent cost, benefit, and performance measurement (during contract administration) provides the means to ensure that the implementation remains cost-effective and achieves the mission, functional, and performance objectives. It also enables agency management to take action if costs are higher than projected or benefits are lower than projected. The full value of the benefit-cost analysis is not realized until performance has been measured, monitored, and controlled, and the solution is cost-effectively and beneficially implemented.

4.7.1 Cost the Status Quo

The benefit-cost analysis should include the current and projected costs of the status quo. This is the "do nothing" alternative, which is an important consideration in justifying a proposed investment. By developing this information, the acquisition team will be able to answer the question, "What is the potential cost and risk associated with *not* funding the acquisition?"

Costing the status quo actually begins during mission and business planning with the establishment of the baseline. Those baseline costs must now be projected over the system life, incorporating such factors as upgrades to meet future workload and increasing costs of maintenance and support.

4.7.2 Cost Alternatives to the Status Quo

After the status quo is evaluated, total costs are defined and projected over the systems life for each viable alternative identified by the alternatives analysis. Costs may include such diverse expenses as those for equipment, personnel, travel, training, utilities, supplies, conversion, site preparation, space, and overhead. These costs may be either recurring or non-recurring.

Recurring costs are those which apply over a range of time—either months or throughout the

system life. Recurring costs may be fixed, adjusted, or variable. Fixed costs do not change over time; adjusted costs change over time, tied (for example) to contractual obligations; and variable costs are those that are volume-sensitive. Categorizing the costs by type helps in making accurate projections.

Non-recurring costs are one-time costs (frequently capital expenditures) expected to occur at a point in the future. Non-recurring costs may be mistakenly overlooked if future workload growth is not considered.

Typically, non-recurring costs (such as the costs of studies, planning, site and facility preparation, and resource acquisition) will dominate the early months and years of the project. However, as the solution is tested and moves into implementation, recurring costs (such as maintenance and personnel support costs) will predominate.

Once costs have been identified and characterized, the challenge is to quantify the factors. Four methods (or a combination of them) are typically used: estimation, comparison, simulation, or observation. Estimation, sometimes referred to as the bottom-up method, requires each organization involved in system development, operation, and use to estimate, average, and project its costs. Comparison uses current costs on comparable systems as a baseline for the new system. Simulation requires that the process or system be analyzed and simulated to obtain costs. Observation involves measuring and recording processes to provide estimates.

Not all costs will apply—or apply the same way—to each alternative. As the projections are made, the acquisition team should document the following elements:

- Assumptions on which the numbers and predictions are based.
- Basis for numbers, such as historical growth pattern and average and peak processing loads.

- Source for numbers, such as the documents (and their locations) from which numbers or predicted increases or decreases were pulled or calculated.
- Plan for measurement, which specifies how costs will be tracked and measured during contract performance.

This information will become important during measurement.

4.7.3 Identify Benefits (Quantifiable and Qualitative)

In addition to costs, the acquisition team must identify the benefits that apply to the status quo and each feasible alternative over the system life. Note that the functional and performance objectives established during mission and business planning should be incorporated in the benefit-cost analysis. The benefits, which will probably vary among the alternatives, should include both quantifiable and qualitative benefits.

Quantifiable benefits include those that can be measured by dollars or by other factors, such as performance. Dollar-quantifiable benefits might include increased productivity, reduction of manual processing, or improved staff utilization. Performance-quantifiable benefits might include reduction in processing time, quicker turnaround on claims forms, or increased electronic dissemination of agency products.

Qualitative benefits include unmeasurable, difficult-to-measure, or costly-to-measure factors, such as improved customer service, security, or access to information.

4.7.4 Quantify and Project Benefits

As with costs, total system life benefits are projected over the system life for the status quo (if there are benefits in taking no action) and each viable alternative identified by the alternatives analysis. Benefits may be either recurring or non-recurring. Recurring benefits

may be fixed, adjusted, or variable. Categorizing the benefits by type helps in making the projections, using such methods as estimation, comparison, simulation, and observation. Not all benefits will apply—or apply the same way—to each alternative.

As with costs, the following elements should be documented: assumptions, basis for numbers, source for numbers, and plan for measurement. This information will become important during measurement.

4.7.5 Perform Benefit-Cost Analysis

Once costs and benefits are identified and projected over the system life, further analysis takes place. This analysis typically involves discounting for present value, developing return-on-investment indicators, and selecting the most cost-beneficial alternative.

4.7.5.1 Present-Value Discounting

Present-value discounting converts the value of benefits and costs occurring at different times in the future to their present value, reflecting the time-value of money. "Present-value calculations equalize the comparison of alternatives when expenses are distributed unequally over time." Present-value discounting is based on two principles:

- Benefits that accrue in the future are worth less than the same level of benefits that accrue now.
- Costs that occur in the future are less burdensome than costs that occur now.

Present value is calculated by multiplying the projected cost or dollar-quantified benefit by a predetermined factor (called discounting), based on the time period and discount rate (established annually in OMB Circular A-94). Therefore, present-value calculations discount (reduce) costs or benefits projected to occur in

³⁷ "Making a Business Case for Information Technology Investments," Acquisition Solutions, Inc.

future years to a common point in time so they can be compared.

4.7.5.2 Return-on-Investment Indicators

Return on investment in Federal acquisition has two important components. First are the traditional dollar-quantified measures of return on investment that are established by the benefit-cost analysis. These include net benefit or net cost, sometimes referred to as net present value; benefit-cost ratio; and breakeven or payback. Second, but certainly no less important, is the performance-based return-oninvestment indicators established as requirements during mission and business planning. These performance indicators are typically quantified in terms other than dollars or are not quantified (if they are qualitative measures). This concept of return on investment is illustrated in Exhibit 4-2, and its components are described in the following sections.

4.7.5.2.1 Net Benefit (Cost)

Net benefit (or net cost) is calculated by subtracting the total present-value (discounted) costs from the total present-value benefits for the status quo and each alternative. For alternatives in which benefits exceed costs, the result will be a positive number. However, for the status quo and perhaps some alternatives, costs may exceed benefits and will result in a negative number. In such cases, there is no dollar-quantified payback on the alternative, and the alternative will not break even.

Net benefit (cost), sometimes referred to as "net present value," is the most straightforward comparison, showing which alternative delivers the greatest net return in terms of dollars—but it does not illustrate which delivers the greatest return relative to the investment. (The benefit-cost ratio does.)

4.7.5.2.2 Benefit-Cost Ratio

A benefit-cost ratio is calculated by dividing the total present-value benefits by the total present-value costs for the status quo and each alternative. For alternatives in which benefits equal costs, the ratio will be 1. When benefits exceed costs, the ratio will be more than 1, which is (of course) preferable. However, when costs exceed benefits for an alternative, the ratio will be less than 1. Breakeven will not be reached.

The benefit-cost ratio provides a readily comparable measure of the dollar-quantified values of the alternatives—that is, a measure of the benefits obtained per dollar spent. If the ratio calculated for an alternative is 1.08, then for each dollar spent, a return of \$1.08 in benefits is estimated—an eight percent return on investment.

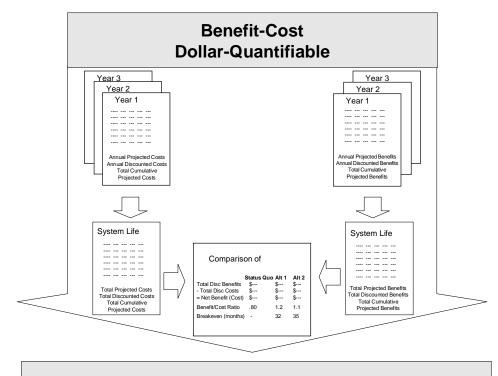
4.7.5.2.3 Breakeven or Payback

Breakeven or payback involves the calculation of how many months it will take for cumulative benefits to equal (then exceed) cumulative costs. Breakeven may be presented in two ways, numerically and graphically.

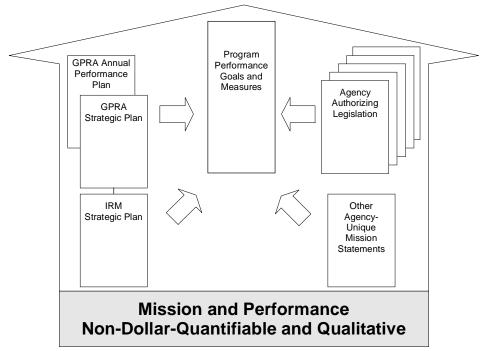
In the mathematical calculation, cumulative total costs are compared to cumulative total benefits to determine the month of breakeven or payback. This calculation requires the use of projected, cumulative numbers—not present-value numbers.

In Exhibit 4-3, the cumulative costs and benefits break even at about \$5,000,000 each during the fourth year. This point is readily apparent. When cumulative costs are equal to cumulative benefits, the lines intersect—the more cumulative benefits exceed cumulative costs, the wider the gap after intersection.

In some cases, it may be important to recover the initial cost of a project as quickly as possible. In those instances, the break-even calculation could become the most important factor. (Note, however, that an alternative that delivers the earliest break-even point may not have the most favorable benefit-cost ratio or net presentvalue benefit.)

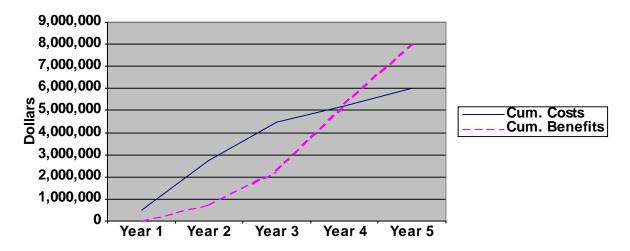


Return-on-Investment Model



Source: @Acquisition Solutions, Inc., from "Making a Business Case for Information Technology Acquisitions"

FEDERAL RETURN ON INVESTMENT Exhibit 4-2



SAMPLE COST/BENEFIT BREAK-EVEN CHART Exhibit 4-3

4.7.5.2.4 Performance-Based Benefits

As part of return-on-investment considerations in the benefit-cost analysis, it is important for the acquisition team to establish what the proposed investment (acquisition) will deliver in terms of performance. These expectations should reflect the performance objectives identified during mission and business planning—for example, all alternatives to the status quo will achieve the mission and performance objective to integrate the multiple student aid databases based on student-level records. The analysis should also differentiate among the alternatives if one will achieve the performance objectives better, faster, or less expensively than the others.

4.7.5.3 Select Most Beneficial Alternative

After all the return-on-investment indicators have been calculated or expressed, the acquisition team should select the most cost-beneficial alternative. However, it is important to remember that benefit-cost analysis is not simply a mathematical formula that dictates a decision, but a managerial decision-making tool. This distinction is especially important in terms of performance-based benefits. As these benefits are expressed for the alternatives under evalua-

tion, it may become apparent that there are true differentiators even though all alternatives meet the mission need. For example, one alternative may be projected to achieve the integration of databases much sooner and at less cost than the others. But it may be necessary to do a trade-off analysis if another alternative would deliver far greater functionality, providing much better information on student aid options to the public. In such a case, the value of the greater functionality would have to be addressed (but not necessarily quantified).

Therefore, the selection decision is not limited to an exercise of subtracting or dividing to determine which alternative has the highest net benefit, largest benefit-cost ratio, or the shortest break-even period. Judgment is required.

To help the decision-making process, the acquisition team can develop an evaluation scheme. Techniques include:

- *Ranking* ordering benefits by their relative importance and determining the degree to which each alternative achieves the benefits.
- **Weighting** scoring each alternative on the extent of benefits projected or assigning values to benefits.

With these methods, numbers are assigned in the form of ranks or scores. Although this approach appears to be a quantified process, the determinations are, by their nature, subjective.

4.7.5.4 Conduct a Sensitivity Analysis

The sensitivity analysis in the benefit-cost analysis tests the sensitivity of the results to changes in the assumptions. Such analysis considers how vulnerable the projected results are to changes in conditions (such as productivity increases that are lower or higher than anticipated).

Generally, sensitivity analysis centers on the factors expected to have the most effect on the net present-value determination. Such factors can include cost estimates, workload projections, project implementation schedule, or values assigned to benefits.

There are four steps in testing the sensitivity of a factor and its effect on the benefit-cost determination:

- Select the factor to be tested.
- Hold all other factors in the analysis constant.
- Rework the analysis, varying the estimates for the factor under consideration.
- Check the results to see if the ranking of alternatives is materially affected.

After the benefit-cost analysis is complete, the acquisition team should be able to respond to the cost-related elements of the seventh question of Raines' Rules.

Will the proposed acquisition

...[be implemented in phased, successive segments as narrow in scope and brief in duration as practicable, each of which solves a specific part of an overall mission problem and delivers a measurable net benefit independent of future segments, unless it can be demonstrated that there are signifi-

cant economies of scale at acceptable risk from funding more than one segment or there are multiple units that need to be acquired at the same time?]

4.8 INDEPENDENT GOVERNMENT COST ESTIMATE

Although not specifically required by the FAR, it is a common practice to develop an Independent Government Cost Estimate (IGCE), which becomes part of the contract file. The IGCE can be based on the market research and benefit-cost analysis. This estimate allows the contracting officer to establish the reasonableness of the offerors' proposed prices and to establish negotiation objectives.

4.9 RISK MANAGEMENT PLAN

Once an alternative is chosen, the acquisition team should develop a risk management plan to address the management and mitigation of the risks and effects identified during the alternatives analysis.

Risk management is an organized method of identifying and measuring risk and developing, selecting, and managing options for handling these risks. OMB identifies three key principles for managing risk when procuring capital assets:³⁸

- Avoid or limit the amount of development work in favor of off-the-shelf technology.
- Make effective use of competition and financial incentives.
- Establish a performance-based acquisition management system that provides for accountability for program successes and failures, such as an earned-value system or similar system.

OMB also specifically identifies types of risk an agency should consider as part of risk

³⁸ OMB Circular A-11, Appendix 300A, "Planning, Budgeting, and Acquisition of Capital Assets" (1998)

management. These include schedule risk, cost risk, technical feasibility, risk of technical obsolescence, dependencies among a new project and other projects or systems (for example, closed architectures), and risk of creating a monopoly for future procurement.

There are a number of means of mitigating risk. OMB suggests the following:

- Appropriate budget authority in separate capital asset acquisition accounts.
- Apportion budget authority for a useful segment (modular acquisition).
- Establish thresholds for cost, schedule, and performance goals of the acquisition, including return on investment, which, if not met, may result in cancellation of the acquisition.
- Select types of contracts and pricing mechanisms that are efficient and that provide incentives to contractors in order to allocate risk appropriately between the contractor and the Government.
- Monitor cost, schedule, and performance goals for the project (or the useful segment being proposed) using an earned-value management system or similar system.
- Continue to review projects during acquisition and performance. For those that fail to meet 90 percent of goals or those with a lower return on investment than alternative uses of funds, consider whether modification, termination, or alternative solutions are warranted.

Other ways to reduce risk include reliance on the commercial marketplace, clear statements of responsibilities for contractor and Government personnel, use of pilots and prototypes, and tying payments to performance.

The risk management plan should be thorough enough to respond to the sixth question of Raines' Rules.

Does the proposed acquisition

...[reduce risk by: avoiding or isolating custom-designed components to minimize the potential adverse consequences on the overall project; using fully tested pilots, simulations, or prototype implementations when necessary before going to production; establishing clear measures and accountability for project progress; and, securing substantial involvement and buy-in throughout the project from the program officials who will use the system?]

4.10 ACQUISITION PLAN

Many consider the acquisition plan to be the most important document in the planning process. The acquisition plan encompasses all the key decisions and highlights the results of the studies and market research. As such, the acquisition plan serves two important purposes: it establishes the rationale for the acquisition approach and strategy, and (because acquisition plans undergo agency approval processes) it serves as a roadmap so that decisions already made do not have to be

re-addressed later.

FAR Subpart 7.1 requires that an acquisition plan be prepared for each acquisition. Information set forth in other documents may be incorporated by reference in the acquisition plan, but the most important strategic elements and decisions should be in the plan so that they are specifically approved by agency management.

Preparation of an acquisition plan can span several weeks or even months as the information is developed. When the team begins to develop the acquisition plan, some information will be readily available, while other information (about the details of contracting, for example) may need to be developed. As with many other documents in acquisition, the acquisition plan is typically developed over time as decisions are made.

4.10.1 Purpose

The purpose of acquisition planning is to structure the acquisition to promote the use of competition and reliance on the products of the commercial marketplace. Acquisition planning should "integrate the efforts of all personnel responsible for significant aspects of the acquisition ... to ensure that the Government meets its needs in the most effective, economical, and timely manner."³⁹

4.10.2 Contents of Written Acquisition Plans

The plan should address all the technical, business, management, and other significant considerations that will control the acquisition. The specific content and detail of plans will vary, depending on the size, nature, complexity, circumstances, and stage of the acquisition. In preparing the plan, the acquisition team should follow the FAR's instructions (summarized in the following sections), together with the agency's implementing procedures.

Acquisition plans have two primary sections. The first addresses acquisition background and objectives, the second delineates the plan of action.

4.10.2.1 Acquisition Background and Objectives

In documenting the background and objectives of the acquisition, the acquisition team is required by the FAR to address eight elements, as follows.

• Statement of need — includes a brief statement of need, summary of the technical and contractual history of the acquisition, feasible acquisition alternatives, the impact of prior acquisitions on those alternatives, and any related in-house effort. This section should incorporate or reference the cost, schedule, and performance

- goals of the acquisition and establish how they relate to the agency mission. It can also address the cost and risk of the status quo alternative and provide the rationale for the selection of the chosen alternative over the others considered.
- Applicable conditions describes all significant conditions affecting the acquisition, such as compatibility requirements and any known cost, schedule, and capability or performance constraints. The constraints identified during the alternatives analysis will contribute to this section. Any conditions that affect the competitiveness of the acquisition should be introduced here, and their rationale should be described under the "competition" section in the plan of action (described in the next section).
- Cost sets forth the established cost goals for the acquisition and the rationale supporting them, and discusses related cost concepts to be employed (such as use and application of life-cycle cost, design-to-cost, and should-cost). This section can summarize the results of the benefit-cost analysis and include the IGCE.
- Capability or performance specifies the required capabilities or performance characteristics of the resources being acquired and states how they are related to the need. This section can also expand on the performance goals introduced in the "statement of need" section above. This section establishes the performance basis in the acquisition plan.
- Delivery or performance-period requirements — describes the basis for establishing delivery or performance-period requirements and justifies any urgency that affects the acquisition, especially if it constitutes justification for not providing for full and open competition. This section should include the stated system life.

³⁹ FAR 7.102(b)

- Trade-offs discusses the expected consequences of trade-offs among the various cost, capability or performance, and schedule goals. This section can address trade-offs made during the selection of the most beneficial alternative as well as the expected application of trade-off determinations during proposal evaluation.
- Risks discusses technical, cost, and schedule risks and describes what efforts are planned or underway to reduce risk as well as the consequences of failure to achieve goals—should specifically address risk allocation between the Government and the contractor and strategies for tying contract payments to performance. This section reflects (or incorporates by reference) the considerations of risk assessment made during the alternatives analysis and the risk management plan developed after selection of the most cost-beneficial alternative. If risk is a factor in the selection of contract type, the considerations and decision should be documented.
- Acquisition streamlining for acquisitions specifically designated by the agency as subject to acquisition streamlining, discusses plans and procedures to encourage industry participation, use only the necessary and cost-effective requirements, and state the time frame for identifying which of those specifications and standards, originally provided for guidance only, will become mandatory. This section can also address (when the determination is made) how the selection of contractual source contributes to acquisition streamlining. Innovations in streamlining should be addressed here.

Information set forth in other documents may be referenced in the acquisition plan.

4.10.2.2 Plan of Action

In documenting the acquisition plan's "plan of action," the acquisition team is required by

- the FAR to address 21 elements, as follows. [Note that many of these areas require detailed information about contracting choices that are addressed in the next chapter. However, for ease of reference and to preview the decisions yet to be made by the acquisition team, the full scope of the acquisition plan is presented here.]
- Sources addresses the results and effect of market research in formulating the requirement and indicates the prospective sources that can meet the need, including consideration of required sources under FAR Part 8 and small business, small disadvantaged business, and women-owned small business concerns under FAR Part 19. This section should also address the means by which the acquisition will take maximum advantage of commercial tech-If commercial or nondevelopmental items are not available or cannot be used, the acquisition plan should address this fact, establish the rationale for the decision, and describe specifically why the Government's requirements cannot be modified to take advantage of commercial technology. Similarly, if there is a single source, the acquisition plan should establish this decision, the underlying rationale, and why the requirement cannot be modified to take advantage of the competitive marketplace.
- Competition describes how competition will be sought, promoted, and sustained throughout the course of the acquisition at the system, component or subsystem, spare and repair part, and subcontractor levels. If full and open competition is not contemplated, cites the authority in FAR 6.302 and provides justification. If there are aspects of the acquisition that limit competition (such as compatibility or past-performance requirements), those aspects should be addressed, their relationship to the agency's need should be established,

- and rationale should be set forth. This justified (and subsequently approved) course of action can serve the acquisition team well (in the event of protest, for example) as the acquisition proceeds.
- Source-selection procedures discusses the source-selection procedures for the acquisition, including the timing for submission and evaluation of proposals and the relationship of evaluation factors to the attainment of the acquisition objectives. This section should also establish whether selection will be made on the basis of low cost or trade-off analysis (best value). If oral presentations will be used, the approach should be described.
- Contracting considerations discusses contract type selection (including whether sealed bidding or negotiation will be used and why); use of multiyear contracting, options, or other special contracting methods; any special clauses, special solicitation provisions, or required FAR deviations; whether equipment will be acquired by lease or purchase and why; and any other contracting considerations. considerations include (but are not limited to) use of options, use of single or multiple awards on task-order and delivery-order contracts, conflict of interest, and contracting approach and rationale (for example, use of GWACs or multiagency contracts).
- Budgeting and funding includes budget estimates (and their derivation) and discusses the schedule for obtaining adequate funds at the time they are required. This section should also highlight any special budget considerations, such as capital planning and budgeting, modular (incremental) budgeting, and use of special funding mechanisms (such as revolving or working capital funds).

- Product or service descriptions explains the choice of product or service description types (including performance-based contracting descriptions) to be used in the acquisition. If more preferred means of describing requirements, such as performance or functional descriptions, are not used, the rationale should be established.
- Priorities, allocations, and allotments specifies the method for obtaining and using priorities, allocations, and allotments, and the reasons for them (when urgency of the requirement dictates a particularly short delivery or performance schedule). Because short delivery or performance times may have an adverse effect on competition or contractor performance, the need should be clear and well justified.
- Contractor versus Government performance addresses the consideration given to OMB Circular A-76 (contracting out). [In general, this procedure applies when the performance of the work is currently being accomplished by Government employees, but may be contracted out to industry. OMB Circular A-76 prescribes the procedures to be used in comparing Government performance to proposed contractor performance.]
- Inherently Governmental functions

 addresses the consideration given to OFPP
 Policy Letter 92-1 (inherently Governmental functions). Services that are not inherently Governmental may be contracted out to the private sector for performance.
- Management information requirements

 discusses, as appropriate, what management system will be used by the Government to monitor the contractor's effort (such as earned value or a performance-based management system). The agency must plan in some detail how the contractions.

tor's performance will be measured against the acquisition's cost, performance, and schedule goals. This information should be available to the competitors (or prospective contractor, in the event of a noncompetitive selection).

- Make or buy discusses any consideration given to make-or-buy programs.
 [Note that there is a preference for commercial or nondevelopmental items. If the decision is to "make" rather than to buy commercially, there should be compelling reasons to do so.]
- Test and evaluation describes the test program of the contractor and the Government, if applicable. This section should address the method, place, party responsible for testing, and acceptance or rejection processes. If possible, test and evaluation (which relate to inspection and acceptance) should incorporate cost, performance, and schedule goals. [Note that current regulations emphasize a reliance on commercial practices.]
- Logistics considerations describes assumptions for life-cycle support, including consideration of contractor or agency maintenance and servicing; distribution of commercial items; reliability, maintainability, and quality assurance requirements, including any planned use of warranties; requirements for contractor data (including repurchase data) and data rights, their estimated cost, and the use to be made of the data; and standardization concepts. To the extent standard commercial practices are adopted, they should be addressed here.
- Government-furnished property indicates any property to be furnished to contractors, including material and facilities, and discusses any associated considerations, such as its availability or the schedule for its acquisition. This section should also address the disposition or transfer

- back to the Government of the property when the contract expires.
- Government-furnished information discusses any Government information, such as manuals, drawings, and test data, to be provided to prospective offerors and contractors. It should also address the means of providing the information, such as hard copy, centralized reference facility, or internet access. (Cost and accessibility are issues.)
- Environmental and energy conservation objectives discusses applicable environmental and energy conservation objectives, applicability of an environmental assessment or environmental impact statement, proposed resolution of environmental issues, and any environmentally-related requirements to be included in solicitations and contracts. [Note that environmental objectives are described in FAR Part 23.]
- Security considerations discusses how adequate security will be established, maintained, and monitored (for acquisitions dealing with classified matters). Although not specifically required by the FAR, issues of security (beyond classified matters) and privacy are important considerations for many information technology systems, which, even if they do not contain classified information, may contain information that is sensitive, confidential, proprietary, or personal. Security considerations can extend to the protection of valuable resources and to back-up and contingency requirements.
- Contract administration describes how the contract will be administered and should include how inspection, acceptance, and evaluation will help ensure that the acquisition's performance objectives will be met. Responsibilities for monitoring and reporting performance should be clear.

- Other considerations discusses, as applicable, standardization concepts, the industrial readiness program, the Defense Production Act, the Occupational Safety and Health Act, foreign sales implications, and any other matters germane to the plan not covered elsewhere. [Note that standardization concepts today emphasize the use of voluntary commercial standards rather than Government standards.]
- Milestones for the acquisition cycle addresses the following steps (if applicable) and any others as appropriate: acquisition plan approval; statement of work; specifications; data requirements; completion of acquisition-package preparation; purchase request; justification and approval for other than full and open competition where applicable and/or any required determination-and-finding approval; issuance of synopsis; issuance of solicitation; evaluation of proposals, audits, and field reports; beginning and completion of negotiations; contract preparation, review, and clearance; and contract award. [Note that the schedule should reflect the schedule goals for the acquisition.]
- Identification of participants in acquisition plan preparation lists the individuals who participated in preparing the acquisition plan, giving contact information for each.

After the acquisition plan is complete, the acquisition team should be able to respond to the eighth and final question of Raines' Rules.

Will the proposed acquisition

...[employ an acquisition strategy that appropriately allocates risk between the Government and the contractor, effectively uses competition, ties contract payments to accomplishments, and takes maximum advantage of commercial technology?]

4.11 IMPLEMENTATION PLAN

One of the final aspects of acquisition planning is considering how to implement and manage the information technology system. The implementation plan should address the post-contract-award requirements for both the contractor and the Government, including management processes and resources (personnel, equipment, and information) required to make the implementation successful.

There are other important aspects of implementation. These include a description of the tasks, responsibilities, resources, and schedules needed to ensure successful implementation and operation of the system. Typical elements of a plan include:

- A timetable with milestone events and dates, measures of success, and a schedule of reviews at critical junctures.
- Roles and responsibilities.
- The strategy for deployment or integration of the new resources with existing resources.
- Site preparation.
- A description of testing and acceptance.
- Training and documentation.
- Publicity, stakeholder, and public acceptance considerations.
- Procedures for maintenance, systems evaluation, and eventual modification or replacement.

A final consideration of the implementation plan is determining how the contractor's performance (against the cost, schedule, and performance goals) will be monitored and reported. This information must be planned and included in the solicitation, because some contract monitoring systems (such as earned-value reporting) can impose significant costs upon the contractor.

4.12 CONCLUSION

At the conclusion of the acquisition planning phase, the acquisition team will understand in detail what is needed; what the market can provide; the best alternative to meet the need; what costs and benefits it will achieve; to some degree, how it will be acquired;⁴⁰ and what needs to be done to implement the solution.

Perhaps most importantly, the acquisition team will also have a full description of its need in terms of the intended cost, performance, and schedule—and it will have the foundation to demonstrate clearly how an individual acquisition's performance objectives assist in achieving the agency's mission and goals.

Finally, these acquisition planning processes will enable the acquisition team to answer the remainder of Raines' Rules, which are essential to OMB's investment review and funding approval. Now it is time to answer the final questions about how to get the needed resources: acquisition.

 $^{^{40}}$ More decisions about acquisition approach may be required. These are addressed in Chapter 5.

CHAPTER 5. ACQUISITION

Acquisition, as defined by Federal Acquisition Regulation (FAR) 2.101, is "the acquiring by contract with appropriated funds of supplies or services ... by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated."

Prior to passage of FASA, the process of "acquiring by contract" information technology systems followed a predictable course: issue a Request for Proposals (RFP), conduct a source selection, award a contract, and (often) respond to a protest. This process, called contracting by negotiation, is no longer the predominant pattern of acquisition in the Federal IT community.

An important effect of acquisition reform is that agencies now have a wide variety of contractual *sources* from which to order—such as more flexible FSS contracts and a large number of other established contracts (GWACs and multiagency contracts). There are also new *methods* of acquisition—such as micro-purchases and simplified acquisition procedures. However, this variety of sources and methods requires members of the acquisition team to make decisions about contracting that agencies never had to make before.

The team should approach this decision making with a firm understanding of the agency's performance-based needs, the power of the competitive marketplace, and the means of structuring an acquisition to provide maximum performance incentives. It has been said that, in today's acquisition environment, virtually any product, service, or vendor is simply an order away on an existing contract. That may be true, but there are other considerations. In order to ensure the best performance and solution at a fair and reason-

able price, the team must incorporate competitive forces into the process—whether the means of acquiring by contract is ordering from an FSS contract, ordering from a GWAC, or issuing a solicitation.

5.1 PURPOSE OF CHAPTER

This chapter describes the processes of "acquiring by contract." It outlines the alternatives for contracting and some of the key considerations that the acquisition team should address.

5.2 OVERVIEW OF CHAPTER

This chapter begins with a description of the acquisition sources and methods (the alternatives) that the acquisition team should consider in deciding how to acquire the needed information technology system by contract. This description is followed by:

- Discussion of the statutorily mandated requirements for competition.
- Overview of rules for publicizing procurements.
- Explanation of source selection.
- Discussion of partnering for win-win contracts, including means of improving performance.

5.3 ACQUISITION ALTERNATIVES

Analyzing acquisition alternatives, deciding on, and executing the specific contracting approach spans both acquisition planning (discussed in the preceding chapter) and acquisition. The choice of acquisition alternatives profoundly affects how the acquisition is conducted. An important contributor to the assessment of acquisition alternatives is the knowledge gained by the acquisition team

from market research and from the analysis of alternatives that has been completed to date.

Because there are many ways to acquire information technology resources, the decisions that relate to the method of acquisition to use, the type of contractual source to use, and what contract to order from (such as which FSS contract or GWAC) are among the most important the acquisition team makes. decisions about contractual method and source affect the extent and intensity of competition, amount and type of notice provided to the private sector, the solutions and prices available and offered, the time to contract award, contractual terms and conditions, type of contract and incentives, speed and places of delivery, degree of control over contract management, fees paid, and many other areas.

The selection of an acquisition approach involves trade-offs. Can my agency order from an existing contract and acquire in a very short time (and at low overhead) most of the functionality originally conceived as the requirement? Or is the requirement so unique, the risk so high, and the degree of control my agency requires so significant that the contract must be fully tailored by competitive solicitation and negotiation?

Most contractual sources today are not "required sources" for Governmentwide use.⁴¹ There are preferences for some sources, but in general, they are not mandatory. In practice, the decision about which contractual source to use is largely up to the agency. Elaborate justification for selecting or not selecting a specific source is generally not required (although the rationale should be clear).

Exhibit 5-1 summarizes the contractual sources and acquisition methods—in other words, the acquisition alternatives that the acquisition team may consider. These sources and alternatives are presented generally in

⁴¹ However, agencies may establish required or mandatory contractual sources for agency-wide use.

their order of consideration, from required and easy-to-use sources to the most time-consuming but customizable methods. All sources do not necessarily need to be considered. If the need can be met by ordering from an existing contract, open market methods do not necessarily need to be considered. If a micro-purchase can be used, there's no need to consider more elaborate (and expensive) procedures. Acquisition alternatives are discussed in the following sections. Formal analysis methods are described in Chapter 4.

FAR Required Sources for Supplies

- Agency Inventories
- Excess from other Agencies
- Federal Prison Industries
- Products from Blind or Disabled
- Federal Wholesale Supply Sources
- Mandatory Federal Supply Schedules
- Optional Federal Supply Schedules
- Commercial Sources

FAR Required Sources for Services

- Products from Blind or Disabled
- Mandatory Federal Supply Schedules
- Optional Federal Supply Schedules
- Federal Prison Industries

Existing Contracts

- Governmentwide Agency Contracts
- Multiagency Contracts
- Agency-mandated Contracts or Sources

Open Market Methods of Acquisition

- Micro-Purchase
- Simplified Acquisition Procedures
- Commercial Item Acquisitions
- Special Test Program for Simplified Acquisitions
- · Sealed Bidding
- Two-Step Sealed Bid
- · Contracting by Negotiation

ACQUISITION ALTERNATIVES

Exhibit 5-1

5.3.1 Required Sources

FAR 8.001 establishes priorities for the acquisition of supplies and services from "Gov-

ernment supply sources." In descending order, the priorities for the acquisition of *supplies* are as follows:

- Agency inventories
- Excess from other agencies (see FAR Subpart 8.1)
- Federal Prison Industries, Inc. (see FAR Subpart 8.6)⁴²
- Products available from the Committee for Purchase From People Who Are Blind or Severely Disabled (see FAR Subpart 8.7)⁴³
- Wholesale supply sources, such as stock programs of GSA (see 41 CFR 101-26.3), the Defense Logistics Agency (see 41 CFR 101-26.6), the Department of Veterans Affairs (see 41 CFR 101-26.704), and military inventory control points
- Mandatory Federal Supply Schedules (see FAR Subpart 8.4)
- Optional use Federal Supply Schedules (see FAR Subpart 8.4)
- Commercial sources (including educational and nonprofit institutions)

In descending order of priority, the priorities for the acquisition of *services* are as follows:

- Services available from the Committee for Purchase From People Who Are Blind or Severely Disabled (see FAR Subpart 8.7)
- Mandatory Federal Supply Schedules (see FAR Subpart 8.4)
- Optional use Federal Supply Schedules (see FAR Subpart 8.4)

• Federal Prison Industries, Inc. (see FAR Subpart 8.6)⁴⁴ or commercial sources (including educational and nonprofit institutions)

Most of the required sources do not supply information technology products or services. In practice, the most broadly relevant required source for information technology needs is the *optional use* FSS contracts that cover a very wide range of equipment, supplies, and services. The only required source that is *mandatory* is only applicable for a very specific category of software and services: "core financial management" software and related services and support (when acquired by most agencies). This mandatory source is referred to as the Financial Management Systems Software (FMSS) Mandatory Multiple Award Schedule (MAS) Contracts Program.

There is no requirement to document the decision about whether a required source can meet the need—unless an FMSS MAS contract will not meet the need for financial management software, services, or support (which requires a waiver). The rules for this mandatory program are in FAR Subpart 8.9.

FSS contracts are very flexible ordering mechanisms, especially well suited to ordering products. They are, by definition under the Competition in Contracting Act (CICA), competitively awarded contracts. In general, when using these contracts, "ordering offices need not seek further competition [from the marketplace], synopsize the requirement, make a separate determination of fair and reasonable pricing, or consider small business set-asides in accordance with Subpart 19.5," as established by FAR 8.404. FSS contracts can also be used to satisfy recurring needs, by

⁴² See also http://www.unicor.gov/unicor/schedule.html. Products include, for example, remanufactured laser toner cartridges and some communications equipment.

⁴³ See http://www.nib.org/Default.htm. Products include, for example, paper products and computer supplies and mouse pads.

⁴⁴ Federal Prison Industries — equally preferable to contracting with private commercial sources — does offer certain information technology-related services, such as data entry services, data conversion services, optical scanning, digitizing services, and others. See web site address in footnote 42.

establishing an agency BPA against an FSS contract.

Although FAR 8.4 covers fundamental information about ordering from FSS contracts, additional market and procedural information is available via the Internet⁴⁵ and in the FSS contracts themselves. Of particular note are the "special ordering procedures" now included in FSS contracts for information technology services that require (among other provisions) that agencies prepare a performance-based statement of work and determine, based on proposed level of effort and proposed mix of labor to perform the work, that the total firm-fixed price or ceiling price is fair and reasonable. (For services, GSA has only determined that the hourly rates are fair and reasonable.)

Whether for products or services, FSS contracts provide a wide range of contractors and quick and easy ordering mechanisms. Using the schedules is procedurally competitive in that, for orders over the micro-purchase threshold (currently \$2,500), ordering offices conduct on-line comparison shopping or review the catalogs of three or more schedule contractors. For orders exceeding the FSS contract's "maximum order threshold," ordering offices should generally seek price reductions—and may, in fact, ask for a price reduction on an order of any size.

There are limitations to ordering from FSS contracts, the most significant of which is that the terms and conditions of the contract are (for all practical purposes) set. Any special requirements may require the acquisition team to look further to identify a contractual source.

5.3.2 Existing Contracts

If required sources will not meet the need, satisfying requirements through existing contracts is preferable to open market purchases (establishing new contracts). FAR Part 13 (Simplified Acquisition Procedures) establishes a preference for using existing indefinite-delivery, indefinite-quantity (IDIQ) contracts or other established contracts if required sources of supply are not available. Even if the requirement exceeds the simplified acquisition threshold (generally \$100,000, thereby making the IDIQ preference provision inapplicable), ordering from a competitively awarded, existing contract that has CLINs (contract line item numbers) that meet the need would be (in nearly all cases) more costeffective than establishing a new contract.

There are two types of Governmentwide IDIQ contracts in wide use today: GWACs and multiagency contracts. In addition, some agencies have established agency-mandated IDIQ contracts that may be applicable to a specific requirement. Therefore, if required sources of supply are not suitable, the acquisition team should determine if existing IDIQ contracts or other required contractual sources (1) are available, and (2) can meet the need in terms of products or services, the suitability of contract type (fixed price or labor hour, for example), and terms and conditions.

5.3.2.1 Governmentwide Agency Contracts and Multiagency Contracts

GWACs are contracts issued by one agency that can be used by other agencies to order information technology services or products. The term "GWAC" is often incorrectly used to refer to any multiagency contract. In fact, OMB has precisely defined the term. ⁴⁷

⁴⁵ http://www.fss.gsa.gov/index.html

⁴⁶ See, for exam-

ple,http://www.gsa.gov/iti/division.htm.

47 The terms were defined in the "The Multiagency/GWAC Program Managers Compact," commonly called the Mayflower Compact, 9/9/97, located at http://www.arnet.gov/References/magycom.html.

Note that both GWAC and multiagency contracts may be single-award contracts under certain circumstances. (FASA establishes a preference for, and at times re-

Governmentwide agency contracts (GWACs) are multiple-award task order contracts that provide for agencies (requesting agencies) needing information technology services to obtain them from another federal agency (servicing agency) that has entered into a contract (a) prior to August 7, 1996, under a delegation of procurement authority issued by the General Services Administration (GSA) under authority granted to it by the Brooks Act, 40 U.S.C. 759, or (b) after being designated as an executive agent for such by the Office of Management and Budget (or otherwise covered by such designation) pursuant to section 5112(e) of the Clinger-Cohen Act, 40 U.S.C. 1412(e). GWACs are subject to applicable Executive branch policies and procedures. However, they are not subject to the requirements and limitations of the Economy Act.

Despite the definition (which specifies task order contracts), the first GWACs that were authorized, and many GWACs that are in effect today, are for products, not services.

Many of the Governmentwide contracts available for ordering today are "multiagency contracts." The term "multiagency contract" is *not* synonymous with "GWAC."

Multiagency contracts are multipleaward task order contracts that provide for agencies (requesting agencies) needing services, including but not limited to information technology services, to obtain them from another federal agency (servicing agency) that also has a need for such services and has awarded, or will be awarding, a contract for such services. Multiagency contracts are subject to the requirements and limitations of the Economy Act (except where more specific statutory authority exists) and applicable Executive branch policies and procedures, including, for information technology services, OMB Memorandum M-97-07⁴⁸ dated February 26, 1997.

The principal, practical difference between a GWAC and a multiagency contract is whether or not the Economy Act applies, because it requires additional determinations and justification. Economy Act procedures are codified in FAR Subpart 17.5. The procedures establish the conditions under which one agency can order from another agency's contract and the information that is exchanged and documented in the order. Furthermore, the Economy Act procedures require that a Determination and Finding (D&F) be signed by a contracting officer (or other official designated by the agency head) of the requesting agency.

Often, agencies' multiagency contracts (and some GWACs) were specifically developed and awarded as task order contracts for serv-Under preferences established by ices. FASA, the agencies managing these contracts made awards to multiple contractors and established commercial-style procedures for "fair opportunity" competition for task orders. OMB has called these streamlined procedures, set forth in FAR 16.505, "much more flexible than the requirements imposed by FAR Part 6 when conducting a formal widespread competition. Such continuous competition for orders has proven to be highly effective in allowing agencies to buy up-to-date technical capability and products quickly and at good prices."49

quires multiple awards.) Note also that requesting agencies may be authorized by the servicing agency to order directly from the contractor under these types of contracts.

⁴⁸ See http://cio.gov/m9707omb.htm.

⁴⁹ OMB Deputy Director For Management Memorandum to The Presidents Management Council, Subject: Competition Under Multiple Award Task and Delivery

Typically, ordering procedures for multiagency contracts and GWACs are established by the agencies that award and manage the contracts. However, it is important to consider these procedures in the light of statutory and regulatory acquisition rules. This point is illustrated by the "preferred source" procedure, about which OMB said:

Of immediate concern is the practice of allowing agencies to designate one of the contract holders as the preferred source for a specific order even though the order does not qualify under one of the sole source exceptions in FAR 16.505(b)(2). This practice discourages other contract holders from competing and deprives the government of the benefit of the innovation and efficiency induced by compe-While the FASA authority tition. provides for reasonable exceptions to the competitive award of orders, going beyond those exceptions to designate a preferred source is not a good practice.⁵⁰

GWACs and multiagency contracts normally require that the agency using the contract pay a fee to the agency that awarded and manages the contract.

5.3.2.2 Agency-Mandated Contracts or Sources

Agencies may have existing mandatory IDIQ or requirements-type contracts for certain types of information technology resources that the acquisition team must use. Agencies can also have other mandated or preferred sources, such as BPAs against FSS contracts or usage of an on-line ordering system. For example, the Navy has established a preference for use of ITEC Direct, an on-line catalog for IT products and services that are com-

pliant with Navy and DoD standards and architectures. When analyzing the contractual sources and alternatives, the acquisition team should determine whether such agency mandates apply.

5.3.3 Open Market

If required sources of supply or existing contracts will not meet the need, then the requirement must be met by obtaining products or services on the open market. The suitability of the various methods of open market contracting (such as micro-purchases, simplified acquisition procedures, and contracting by negotiation) depends on factors such as the anticipated dollar value of the acquisition, availability of commercial items, and the need to negotiate. These open market contract methods and some of their key features are described below.

5.3.3.1 Micro-Purchase

If required sources, Governmentwide contracts, or agency-mandated contracts are not suitable for the acquisition, FAR 13.003 indicates that "agencies shall use simplified acquisition procedures to the maximum extent practicable." If possible, the simplest simplified acquisition procedure should be used—a micro-purchase, which is a simplified acquisition procedure applied to an acquisition under \$2.500.

A micro-purchase is a method, not a contractual source. Micro-purchase procedures are intended to be broadly delegated by agencies to end users who order with Governmentwide commercial purchase cards. Micro-purchases need not be set aside for small business and may be awarded without soliciting competitive quotations if the price is considered reasonable. Micro-purchases can be made by such means as purchase orders, orders from FSS contracts, calls against BPAs, and similar means described in FAR Part 13.

Order Contracts, April 21, 1998, located at http://www.arnet.gov/References/memopmc.html. ⁵⁰ Ibid.

5.3.3.2 Simplified Acquisition Procedures

Simplified acquisition procedures apply to acquisitions with projected costs below the simplified acquisition threshold (currently \$100,000).⁵¹ Generally, simplified acquisitions are set aside for small business (if over \$2,500), publicized, and competed to the "maximum extent practicable."

Simplified acquisition procedures use streamlined processes that permit innovative approaches, emphasize the use of electronic purchasing techniques, permit oral solicitation in certain circumstances, allow the use of a combined synopsis/solicitation, do not require the inclusion of evaluation subfactors or statements of relative importance of evaluation factors, authorize "broad discretion" in fashioning suitable evaluation procedures, render inapplicable certain laws and regulations, incorporate provisions and clauses by reference, and limit documentation requirements.

Simplified acquisition methods (described in FAR Subpart 13.3) include use of the Governmentwide commercial purchase card, issuance of purchase orders,⁵² and establishment of BPAs for recurring needs.

If simplified acquisition procedures will be used to acquire commercial items *and* a Governmentwide commercial purchase card will *not* be used, the policies in FAR Part 12 (Acquisition of Commercial Items) apply as well.

5.3.3.3 Commercial Item Acquisition

FAR Part 12 prescribes policies and procedures unique to the acquisition of commercial

⁵¹ In the case of a contract to be awarded and performed, or purchase to be made, outside the United States in support of a contingency operation or a humanitarian or peacekeeping operation, the term means \$200,000. (FAR 2.101)

items. Use of commercial item acquisition procedures is not controlled by a threshold, but by the determination of whether or not the items to be acquired (which may be products or services) are "commercial," as defined in detail in the FAR.⁵³

These policies and procedures, authorized by FASA, are intended to resemble more closely those of the commercial marketplace than do more traditional acquisition procedures. In brief, commercial item acquisition permits use of practices such as reliance on available technical literature rather than written proposals, proposal by the offeror and separate evaluation of more than one product that will meet the need, reliance on contractors' quality assurance systems rather than Government inspection and acceptance, and tailoring of provisions and clauses to reflect customary commercial practices. Special contract format,⁵⁴ solicitation provisions, and contract clauses are established, and special procedures set forth for use of streamlined, combined synopsis/solicitation. Contract types for commercial item acquisition under FAR Part 12 are limited to firm-fixed-price contracts or fixed-price with economic price adjustment. (IDIQ contracts with such pricing are acceptable.)

When acquiring commercial items, contracting officers use the FAR Part 12 policies in conjunction with the policies and procedures for solicitation, evaluation, and award prescribed in Part 13, Simplified Acquisition Procedures; Part 14, Sealed Bidding; or Part 15, Contracting by Negotiation, as appropriate for the particular acquisition.

⁵² The purchase order is an offer by the Government to the supplier to buy certain supplies or services upon specified terms and conditions. A contract is established when the supplier accepts the offer. (FAR 13.004)

⁵³ See Appendix A.

⁵⁴ For example, no section C for specifications or M for evaluation, etc.

5.3.3.4 Special Test Program for Simplified Acquisitions for Certain Commercial Items

Simplified procedures can sometimes be used for acquisitions above the simplified acquisition threshold⁵⁵ but under \$5 million. FAR Subpart 13.5 authorizes, "as a test program, use of simplified procedures for the acquisition of supplies and services in amounts greater than the simplified acquisition threshold but not exceeding \$5,000,000, including options, if the contracting officer reasonably expects, based on the nature of the supplies or services sought, and on market research, that offers will include only commercial items."

Under this test program—which will be in force for solicitations issued through January 1, 2000—contracting officers may use any simplified acquisition procedure in FAR Part 13 (subject to any specific dollar limitation applicable to the particular procedure). The purpose of the test program is to "vest contracting officers with additional procedural discretion and flexibility, so that commercial item acquisitions in this dollar range may be solicited, offered, evaluated, and awarded in a simplified manner that maximizes efficiency and economy and minimizes burden and administrative costs for both the Government and industry."

5.3.3.5 Sealed Bidding

If required sources, Governmentwide contracts, agency-mandated contracts, or simplified acquisition procedures are not suitable for the acquisition, then the agency must choose between the more traditional means of

⁵⁵ "Simplified acquisition threshold" means \$100,000, except that in the case of any contract to be awarded and performed, or purchase to be made, outside the United States in support of a contingency operation (as defined in 10 U.S.C. 101(a)(13)) or a humanitarian or peacekeeping operation (as defined in 10 U.S.C. 2302(7) and 41 U.S.C. 259(d)), the term means \$200,000. (FAR 2.101)

contracting: sealed bidding or contracting by negotiation.

Sealed bidding is a method of contracting for supplies or services that employs competitive bids, public opening of bids, and awards. Sealed bidding is used if:

- Time permits the solicitation, submission, and evaluation of sealed bids.
- The award will be made on the basis of price and other price-related factors.
- It is not necessary to conduct discussions with the responding offerors about their bids.
- There is a reasonable expectation of receiving more than one sealed bid.

If any of these conditions does not apply, then contracting by negotiation should be used. If all these conditions apply, sealed bidding is appropriate.

There are five steps involved in the sealed bid process:

- Preparation of Invitation for Bids. The Invitation for Bids (IFB) must describe the Government's requirements clearly, accurately, and completely to permit the development of bid prices without discussion. The IFB may not include unnecessarily restrictive specifications or requirements that might unduly limit the number of bidders.
- Publicizing the Invitation for Bids. The
 IFB is publicized through distribution to
 prospective bidders, posting in public
 places (including electronic), and other appropriate means. Agencies must publicize
 the IFB for a sufficient time before public
 opening of bids to enable prospective bidders a "reasonable time" to prepare and
 submit bids.
- Submission of bids. Bidders must submit sealed bids to be opened at the time and place stated in the solicitation for the public opening of bids. The FAR permits the

use of telegraphic, facsimile, and electronic bids under specified conditions.

- *Evaluation of bids*. Bids, evaluated without discussions, must comply in all material respects with the IFB.
- Contract award. After bids are publicly opened, award is made "with reasonable promptness" to that responsible bidder whose bid, conforming to the Invitation for Bids, will be most advantageous to the Government, considering only price and the price-related factors included in the invitation.

Traditionally, sealed bidding has been far less frequently used than competitive negotiation in acquiring information technology, primarily because bids must be evaluated and the low-price bid selected without discussions. This process is often difficult given the inherent complexity of information technology. Furthermore, best-value selections (often quite appropriate for IT acquisitions) cannot be made, given that sealed-bid selection is made "considering only price and the pricerelated factors included in the invitation" for bids. However, as the market has matured and stabilized and the need to purchase technology in commodity volumes has developed, the opportunities to use sealed bidding effectively have increased.

Contract types for sealed bid acquisition under FAR Part 14 are limited to firm-fixed-price contracts or fixed-price with economic price adjustment.

5.3.3.6 Two-Step Sealed Bidding

FAR Subpart 14.5 permits two-step sealed bidding, which is a "combination of competitive procedures designed to obtain the benefits of sealed bidding when adequate specifications are not available." It combines elements of negotiated acquisition and sealed bidding.

Two-step sealed bidding may be used instead of negotiation when all of the following conditions are present:

- Available specifications or purchase descriptions are not definite or complete or may be too restrictive without technical evaluation and discussion of the technical aspects of the requirement to ensure mutual understanding between each source and the Government.
- Definite criteria exist for evaluating technical proposals.
- More than one technically qualified source is expected to be available.
- Sufficient time is available to use the twostep method.
- A firm-fixed-price contract or a fixed-price contract with economic price adjustment will be used.

In this method of acquisition, the first step is technical. Step one consists of the request for submission, the evaluation, and (if necessary) discussion of technical proposals. The objective is simply to determine the acceptability of the supplies or services offered—in other words, the responsiveness of the offer. No pricing is involved.

The second step is pricing. Step two involves the submission of sealed priced bids by those who submitted acceptable technical proposals in step one. As with sealed bidding, award in a two-step acquisition is made on the basis of price and price-related factors.

5.3.3.7 Contracting by Negotiation

Contracting by negotiation—issuance of an RFP—is used when other contracting methods are inappropriate. The only documentation required of this decision is to state, briefly in writing, which of the four conditions for sealed bidding (see 5.3.3.5) are not met by the impending acquisition.

Contracting by negotiation is "intended to minimize the complexity of the solicitation, evaluation, and source selection decision, while maintaining a process designed to foster an impartial and comprehensive evaluation of offerors' proposals, leading to selection of the proposal representing the best value to the Government." Although contracting by negotiation has traditionally been a timeconsuming process, certain reform innovations have streamlined the process somewhat. These reform innovations include techniques such as the advisory multi-step process, oral presentations, and competitive ranges limited for purposes of efficiency. These techniques are discussed in the sections that follow.

Another trend that has greatly affected the efficiency and effectiveness of the negotiated procurement process is the emphasis on improved Government-industry communications throughout the process. The FAR encourages exchanges of information among all interested parties (consistent with procurement integrity requirements) prior to receipt of proposals—and the rules for exchanges with offerors after receipt of proposals (including debriefings) are not as narrowly prescribed as they were before FASA and FARA (also known as the Clinger-Cohen Act).

Contracting by negotiation generally involves the following steps:

Preparation of Request for Proposals.
 Negotiated acquisitions use RFPs to communicate Government requirements to prospective contractors and to solicit proposals. At a minimum, an RFP for a competitive acquisition describes the requirement, anticipated terms and conditions that will apply to the contract, information required to be in the offeror's proposal, and evaluation factors and significant subfactors (and their relative importance). The FAR permits contracting officers to use oral, facsimile, and electronic RFPs under specified conditions.

- Publicizing the Request for Proposals. The RFP is publicized through distribution to prospective bidders, posting in public places (including electronic), synopsis in the Commerce Business Daily, and other appropriate means. Publicizing must permit a "reasonable time" to prepare and submit proposals. 56
- Submission of proposals. Offerors must submit proposals by the time and at the place specified in the RFP. The FAR permits contracting officers to use facsimile and electronic commerce for receipt of proposals under specified conditions.
- *Evaluation of proposals*. Proposals are evaluated against the factors and subfactors established in the RFP. The evaluation and selection strategy may be based on either best value or a low price. ⁵⁷
- Contract award. After evaluation, award is made to that responsive and responsible offeror whose proposal has been chosen (based on the RFP's criteria) as either the lowest priced technically acceptable offer or the best value.

FAR Part 15 details the processes used to contract by negotiation. If the acquisition is for commercial products and services⁵⁸—as is typically the case with information technology products—the streamlined techniques of FAR Part 12 may also be used.

Traditionally, contracting by negotiation has been "the" way to acquire information technology resources. However, the flexibility to tailor an acquisition completely and conduct detailed source selections in an environment of full and open competition came at a price: time and the cost to compete. Today, thanks to reforms in the process, contracting by ne-

⁵⁶ The requirements for publicizing procurements are addressed in greater detail in section 5.5 of this chapter. ⁵⁷ Source selection is addressed in greater detail in section 5.6 of this chapter.

⁵⁸ See section 5.3.3.3.

gotiation is comparatively less timeconsuming and expensive than it was in the past.

5.4 REQUIREMENTS FOR COMPETITION

The fundamental requirement for competition is based on law. Only in certain prescribed circumstances can agencies acquire goods or services without competition.

However, there are different types and degrees of competition, also defined by law—and there are different points during the acquisition life cycle when competition can occur. It is important for the acquisition team to be knowledgeable about the requirements for competition, because these requirements substantially shape the contracting process.

5.4.1 CICA Competitive Requirements

The foundation for competitive requirements is CICA (implemented in FAR Part 6), which establishes three standards of competition:

- Full and open competition
- Full and open competition after exclusion of sources
- Other than full and open competition

5.4.1.1 Full and Open Competition

"Full and open competition" as defined by FAR 6.003 "means that all responsible sources are permitted to compete."

With some exceptions (mentioned above and detailed below), CICA and the FAR require that agencies promote and provide for full and open competition in soliciting offers and awarding Government contracts and should use the competitive procedure or combination of competitive procedures best suited under the circumstances of the procurement. Such techniques typically involve competitive proposals (in response to RFPs) or (to a lesser degree for information technology) sealed bids (in response to IFBs). The standard of

full and open competition was developed to apply to the traditional contracting methods of soliciting bids and proposals.

In practice, full and open competition was sometimes costly (in dollars and time) to both Government and industry. Competitions were broadly advertised to elicit responses from "all responsible sources." Typically, the Government received and evaluated many proposals. Furthermore, the workload could not be moderated, because there were limited means for the Government to eliminate proposals or advise contractors that had little likelihood of award. This process made it difficult for contractors to select and compete for contract opportunities they were likely to win, a selectiveness that keeps bid and proposal costs low-to the advantage of both industry and Government.

Congress, in FARA, moderated the full and open competition mandate by indicating:

The Federal Acquisition Regulation shall ensure that the requirement to obtain full and open competition is implemented in a manner that is consistent with the need to efficiently fulfill the Government's requirements.

The FAR now provides additional exceptions to CICA competitive mandates (see 5.4.2) and implements techniques that can be used in negotiated procurements to provide for efficient competition (see 5.6.3.3.).

5.4.1.2 Full and Open Competition after Exclusion of Sources

CICA established a special category of competition, full and open competition after exclusion of sources, that applies when there is a need to maintain alternative sources of supply.

FAR Subpart 6.2 establishes that agencies "may exclude a particular source from a contract action in order to establish or maintain an alternative source or sources for the sup-

plies or services being acquired." This action is typically taken, for example, to:

- Establish or maintain an essential engineering, research, or development capability in the interest of national defense.
- Ensure the continuous availability of a reliable source of supplies or services.
- Set aside acquisitions and limit competition to only small business concerns. 59

As with full and open competition, an agency is generally required to follow competitive procedures to solicit proposals or bids and (in the event proposals are solicited) may adopt the techniques that provide for efficient full and open competition, described in Section 5.4.1.1.

5.4.1.3 Other than Full and Open Competition

CICA and FAR Part 6 permit "other than full and open competition" only in seven specifically described conditions:

- Only one responsible source and no other supplies or services will satisfy agency requirements.
- Unusual and compelling urgency.
- Industrial mobilization; engineering, developmental, or research capability; or expert services.
- International agreement.
- Authorized or required by statute.
- National security.
- Public interest.

The FAR describes each condition in detail in terms of statutory authority, application, and limitations—and requires each contract awarded without providing for full and open competition to cite the specific authority under which it was so awarded. These are the

only authorized justifications; contracting without providing for full and open competition *cannot* be justified on the basis of:

- A lack of advance planning by the requiring activity; *or*
- Concerns related to the amount (or impending expiration) of funds available to the agency or activity for the acquisition of supplies or services.

FAR 6.302-1(c) indicates that an "acquisition that uses a brand name description or other purchase description to specify a particular brand name, product, or feature of a product, peculiar to one manufacturer does not provide for full and open competition regardless of the number of sources solicited." Such acquisitions must be justified and approved in accordance with FAR 6.303 and 6.304. However, acquisitions that use brand-name-or-equal descriptions, but that permit prospective contractors to offer products other than those specifically referenced by brand name, provide for full and open competition and do not require justifications and approvals to support their use.

Even when contracting under other than full and open competition, the contracting officer should "solicit offers from as many potential sources as is practicable under the circumstances." When other than full and open competition will be used, contracting officers are generally required under the terms of the seven specific exceptions in FAR Subpart 6.3 to justify the action in writing and obtain approval in accordance with the detailed requirements of FAR 6.303 and FAR 6.304.

5.4.2 Exceptions and Other Competitive Requirements

Although CICA is the foundation for competitive requirements, law and regulation make certain exceptions to CICA's competitive mandates and establish other competitive

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⁵⁹ See FAR 6.2 for additional examples.

requirements. "Full and open competition" is not the only competitive mandate.

First, CICA does not apply to contract modifications that are within the scope and under the terms of an existing contract—or to the exercise of priced options that were evaluated as part of the initial competition. Second, CICA does not apply to orders against existing contracts. The general principle is that, because the contract itself was publicized and competed, ensuing orders against such a contract need not be competed. Therefore, CICA does not apply to:

- Orders placed under requirements contracts or definite-quantity contracts.
- Orders placed under indefinite-quantity contracts that were entered into pursuant to the provisions of CICA.⁶⁰
- Orders placed against task order and delivery order contracts entered into pursuant to FAR Subpart 16.5.

Third, the CICA competitive standards do not apply to prospective contracts that will be awarded using simplified acquisition procedures of FAR Part 13 or other contracting procedures that are expressly authorized by statute. Law and regulation establish other competitive requirements, as summarized below.

5.4.2.1 Competition Under Federal **Supply Schedule Contracts**

As defined by CICA, GSA awards FSS contracts using "competitive procedures." Orders against these contracts do not need to meet the competitive requirements of FAR Part 6. However, FSS procedures establish a competitive process for placing certain orders and for establishing BPAs against FSS contracts.

Some of these procedures are in FAR 8.404(b), which indicates that, for orders above the micro-purchase threshold but not exceeding the contract's maximum order threshold, ordering offices should consider "reasonably available information" from the "GSA Advantage!" on-line shopping service, or review the "catalogs/pricelists of at least three schedule contractors and select the delivery and other options available under the schedule that meet the agency's needs." If the order will exceed the FSS contract's maximum order threshold, and review is by catalogs/pricelist, then "additional" (more than three) potential contractors shall be considered.

FSS contracts also include "special ordering procedures," some of which are competitive processes. Before issuing orders, the acquisition team should review the FSS contracts' terms and conditions for "special ordering procedures."

5.4.2.2 Competition Under Task and **Delivery Order Contracts**

Orders placed against task order and delivery order contracts⁶¹ entered into pursuant to FAR Subpart 16.5 are exempt from the requirements of CICA. However, special competiprocedures—referred as fairto opportunity procedures—apply. These were established by FASA and are implemented in FAR 16.5: there is a preference for multiple award of task and delivery order contracts.

Because of the multiple award preference, task and delivery order contracts can have two levels of "competition." In the first competition, contractors are awarded contracts. There is the potential for a second level in which competitive procedures can be employed to decide which of the multiple contractors will receive the order (when the value of the order is over \$2,500). This level is referred to as

⁶¹ Task order contracts (for services) and delivery order contracts (for supplies) are both types of IDIQ contracts. GWACs and multiagency contracts are nor-

mally task or delivery order contracts.

the "fair opportunity" process, which is described at FAR 16.505(b)(1).

In general, this process means that each awardee is "provided a fair opportunity to be considered for each order in excess of \$2,500." Fair opportunity procedures need not comply with the competition requirements of FAR Part 6, nor is there a requirement that each of the multiple awardees be contacted about an upcoming order. Contracting officers have broad discretion in developing the fair opportunity procedures (which are included in the solicitation and contract).

There are exceptions to employing the fair opportunity procedures. The FAR specifies that contractors need not be given an opportunity to be considered for a particular order in excess of \$2,500 under multiple delivery order contracts or multiple task order contracts if the contracting officer determines that:

- The agency need for such supplies or services is of such urgency that providing such opportunity would result in unacceptable delays.
- Only one such contractor is capable of providing such supplies or services required at the level of quality required because the supplies or services ordered are unique or highly specialized.
- The order should be issued on a solesource basis in the interest of economy and efficiency as a logical follow-on to an order already issued under the contract, provided that all awardees were given a fair opportunity to be considered for the original order.
- It is necessary to place an order to satisfy a minimum guarantee.

However, if these circumstances do not apply, it is often to the agency's advantage to employ competitive procedures at the task order level to help ensure that the best solutions and prices are offered.

5.4.2.3 Competition Under Micro-Purchase Procedures

Micro-purchases, as a means of simplified acquisition under FAR Part 13, are excepted from CICA's (and the FAR Part 6) full and open competition mandate. A different competitive standard applies. FAR 13.202 establishes that micro-purchases "may be awarded without soliciting competitive quotations" if the contracting officer or appointed individual considers the price to be reasonable. However, to the extent practicable, micropurchases should be distributed equitably among qualified suppliers.

5.4.2.4 Competition Under Simplified Acquisition Procedures

CICA (and FAR Part 6) competitive rules do not apply to acquisitions conducted under the simplified acquisition procedures of FAR Part 13. A different competitive standard is used: maximum practicable competition.

This standard requires that the contracting officer (and acquisition team) are to "promote competition to the maximum extent practicable to obtain supplies and services from the source whose offer is the most advantageous to the Government, considering the administrative cost of the purchase." Specific restrictions are as follows:

- Soliciting quotations based on personal preference.
- Restricting solicitation to suppliers of wellknown and widely distributed makes or brands.

Under simplified acquisition procedures, the method of ensuring maximum practicable competition is closely related to how the acquisition is publicized. There is a preference for using FACNET. If FACNET or other public notification is not used, FAR 13.104(b) indicates that "maximum practicable competition ordinarily can be obtained by soliciting quotations or offers from sources within the

local trade area." Solicitation of at least three sources is sufficient (under provisions of the regulation) to "promote competition to the maximum extent practicable."

5.4.2.5 Competition Under the Special Test Program for Simplified Acquisitions for Certain Commercial Items

Acquisitions conducted under the special test program for using simplified acquisition procedures for certain commercial items above the simplified acquisition threshold but below \$5 million are exempt from all requirements in Part 6 except the requirements for sole source justification. This policy means that such acquisitions (conducted under simplified procedures) should achieve maximum practicable competition—and that sole source acquisitions:⁶²

- Cite the authority of the test program for commercial items (section 4202 of the Clinger-Cohen Act of 1996).
- Are justified in writing as required by FAR 6.303-2.
- Are approved at the levels specified in FAR 13.501(a).

Furthermore, there are also requirements to document the procedures used in awarding the contract, the number of offers received, and the basis for the contract award decision.

5.5 PUBLICIZING REQUIREMENTS

Closely related to the statutory mandates for competition are those that relate to publicizing procurements, codified in FAR Part 5. Contract actions are publicized to:

• Increase competition.

⁶² "Sole source acquisition" means a contract for the purchase of supplies or services that is entered into or proposed to be entered into by an agency after soliciting and negotiating with only one source. (FAR 6.003)

- Broaden industry participation in meeting Government requirements.
- Assist small business concerns, small disadvantaged business concerns, and women-owned small business concerns in obtaining contracts and subcontracts.

Traditionally, the *Commerce Business Daily* was "the" method of disseminating information about significant, upcoming procurement opportunities. Today, electronic means (including FACNET) are increasingly used.

In brief, the requirements to publicize contract actions are as follows:

- For proposed contract actions expected to exceed \$10,000, but not expected to exceed \$25,000, display in a public place at the contracting office. Public display may be by electronic bulletin board, or any other appropriate electronic means located at the contracting office.
- For proposed contract actions expected to exceed \$25,000, synopsize in the *Com*merce Business Daily (unless an exception, including posting notice by FACNET, applies).

In general, orders against existing contracts do not need to be announced to the general public.

5.6 SOURCE SELECTION

Source selection, the process of selecting a contractor, varies in its structure and formality depending on the dollar cost of the acquisition and the type of acquisition. At one end of the spectrum is the micro-purchase, which may involve simply the use of a Governmentwide purchase card to order from a contractor whose price is deemed reasonable. At the other extreme is the evaluation and source selection of competitive proposals, which may involve an elaborate organization, detailed structure for decision making, and high degree of formality.

5.6.1 Basis for Source Selection

Source selection can be made on the basis of either lowest price or trade-off analysis (best value). In general, the source selection approach is decided well in advance and is communicated to potential offerors.⁶³

The relative importance of cost or price varies by type of acquisition. For example, in acquisitions where the requirement is clearly defined and the risk of unsuccessful contract performance is minimal, cost or price may play a dominant role in source selection. The less definitive the requirement, the more development work required, or the greater the performance risk, the more technical or past-performance considerations may play a dominant role in source selection.

5.6.1.1 Lowest Price, Technically Acceptable Offer

Selection on the basis of lowest evaluated price from a technically acceptable source may be appropriate when the need is clearly defined, the products available to meet the need are similar in capability or functionality, risk is low, and there is little to differentiate one contractor from another. Low-price selection may also be appropriate for low-dollar-value acquisitions of products that will rely on simplified procedures and electronic posting (such as on FACNET).

When using an RFP and planning to award on the basis of lowest price, FAR 15.101-2 establishes the following guidelines.

 Solicitations shall specify that award will be made on the basis of the lowest evaluated price of proposals meeting or exceeding the acceptability standards for non-cost factors (which may include past performance).

- Tradeoffs are not permitted.
- Proposals are evaluated for acceptability but not ranked using the non-cost/price factors.

When using an IFB, selection is made only on the basis of price and price-related factors.

5.6.1.2 Best Value

"Best value" means "the expected outcome of an acquisition that, in the Government's estimation, provides the greatest overall benefit in response to the requirement." Best-value source selections consider factors other than price or price-related factors and include a "tradeoff" process. When using a tradeoff process, the following guidelines apply:

- All evaluation factors and significant subfactors that will affect contract award and their relative importance are clearly stated in the solicitation.
- The solicitation states whether all evaluation factors other than cost or price, when combined, are significantly more important than, approximately equal to, or significantly less important than cost or price.

This process permits tradeoffs among cost or price and non-cost factors and allows the Government to accept other than the lowest priced proposal. The perceived benefits of the higher priced proposal must merit the additional cost, and the rationale for tradeoffs must be documented in the file in accordance with FAR 15.406.

A best-value selection is used when it may be in the best interest of the Government to consider award to other than the lowest priced offeror or other than the highest technically rated offeror. Selection on the basis of best

5-16

⁶³ Note that one of the legacies of acquisition reform is the importance of contractors' past performance, which generally must be considered in evaluation and source selection. For example, FAR 15.304(c)(3)(ii) requires that past performance be evaluated in all source selections for negotiated competitive acquisitions issued on or after January 1, 1999, for acquisitions expected to exceed \$100,000.

⁶⁴ FAR 2.101.

value may be appropriate when the need is not clearly defined or is defined clearly but in functional terms, ⁶⁵ the products or services available to meet the need are not necessarily similar in capability or functionality, there are risk factors, or there are significant differentiators among contractors. Best-value selections are more frequently employed (than lowest price selections) for information technology resources.

5.6.2 Source Selection in Sealed Bidding

Sealed bidding procedures (FAR Part 14) involve the following actions:

- Announcement and release of an IFB.
- Submission of sealed bids.
- Public opening of bids at an announced time and place.
- Evaluation of the bids without discussions.
- Prompt award "to that responsible bidder whose bid, conforming to the invitation for bids, will be most advantageous to the Government, considering only price and the price-related factors included in the invitation."

Best-value selection may not be made.

5.6.3 Source Selection in Negotiated Procurements

The FAR's most detailed description of source selection is in the context of a negotiated procurement (solicitation by RFP), addressing such areas as responsibilities, evaluation factors and significant subfactors, proposal evaluation, and exchanges.

5.6.3.1 Responsibilities and Organization

FAR 15.303 establishes that the head of the agency, or his or her designee (usually but not always the contracting officer), is the Source

Selection Authority (SSA). The responsibilities of the SSA are to:

- Establish an evaluation team, tailored for the particular acquisition, that includes appropriate contracting, legal, logistics, technical, and other expertise to ensure a comprehensive evaluation of offers.
- Approve the source selection strategy or acquisition plan, if applicable, before solicitation release.
- Ensure consistency among the solicitation requirements, notices to offerors, proposal preparation instructions, evaluation factors and subfactors, solicitation provisions or contract clauses, and data requirements.
- Ensure that proposals are evaluated based solely on the factors and subfactors contained in the solicitation.
- Consider the recommendations of advisory boards or panels (if any).
- Select the source or sources whose proposal is the best value to the Government.

The responsibilities of the contracting officer are to:

- Serve as the focal point for inquiries from actual or prospective offerors after release of a solicitation.
- Control exchanges with offerors after receipt of proposals.
- Award the contract.

To conduct technical and cost evaluations, agencies may choose to establish a Source Selection Evaluation Board (SSEB) comprised of two parts: the Technical Evaluation Panel (TEP) and the Cost Evaluation Panel (CEP). The members of the SSEB should represent the various technical and functional disciplines needed to evaluate proposals for the acquisition. The results of the SSEB's evaluations are reported to the SSA.

⁶⁵ Functional specifications give contractors increased flexibility to develop and propose *solutions*, which are most appropriately evaluated in terms of "best value."

For very complex or sensitive acquisitions, agencies may also choose to establish a Source Selection Advisory Council (SSAC). The SSAC advises the SSA on the conduct of the source selection and prepares an independent analysis of the evaluation conducted by the SSEB. (See Exhibit 2.7, Source Selection Organization Structure.)

5.6.3.2 Overview of Source Selection Process

The source selection process is tailored to each acquisition. The steps below are common to most source selections, arranged in chronological sequence:

- Development of source selection plan. The source selection plan expands on the information in Section M of the solicitation, explaining in more detail how proposals will be solicited and evaluated. Typically, it also outlines how the competitive range will be established, how negotiations will be conducted, and how selection will be made.
- *SSEB orientation*. This step includes completion of nondisclosure and conflict of interest forms, review of evaluation and scoring methods, and training.
- Proposal evaluation. This step involves the assessment of each proposal and the respective offeror's ability to perform the prospective contract successfully, based solely on the factors and subfactors specified in the solicitation. Evaluations may be conducted using any rating method or combination of methods, including color or adjectival ratings, numerical weights, and ordinal rankings. The relative strengths, deficiencies, significant weaknesses, and risks supporting proposal evaluation are documented in the contract file. Technical and cost evaluations are conducted separately.

- Clarification and communication. After proposal evaluation, agencies may seek "clarifications," which are limited exchanges between the Government and offerors that may occur when award without discussions (negotiation) is contemplated. If a competitive range will be established, agencies may initiate "communications," which are exchanges between the Government and offerors after receipt of proposals, leading to establishment of the competitive range. FAR 15.306 sets very specific rules about what is an acceptable "clarification" and "communication."
- Competitive range. Based on the ratings of each proposal against all evaluation criteria, the contracting officer establishes a competitive range comprised of all of the most highly rated proposals. If provided for in the solicitation, the contracting officer may determine that the number of most highly rated proposals that might otherwise be included in the competitive range exceeds the number at which an efficient competition can be conducted, and may further limit the competitive range for purposes of efficiency.
- Discussions, also called negotiations, are exchanges between the Government and offerors after establishment of the competitive range that are undertaken with the intent of allowing the offeror to revise its proposal. negotiations are tailored to each proposal, are conducted with each offeror in the competitive range, and may include bargaining. The purpose of discussions is to indicate or discuss significant weaknesses, deficiencies, and other aspects of the proposal (such as cost, price, technical approach, past performance, and terms and conditions) that could, in the opinion of the contracting officer, be altered or explained to enhance materially the proposal's potential for award.

- Final proposal revision. At the conclusion of discussions, each offeror still in the competitive range is given an opportunity to submit a final proposal revision.⁶⁶ The contracting officer is required to establish a common cut-off date only for receipt of final proposal revisions. Requests for final proposal revisions advise offerors that the final proposal revisions shall be in writing and that the Government intends to make award without obtaining further revisions.
- Source selection decision: The SSA's decision should be based on a comparative assessment of proposals against all source selection criteria in the solicitation. While the SSA may use reports and analyses prepared by others, the source selection decision should represent the SSA's independent judgment. The source selection decision is documented, and the documentation includes the rationale for any business judgments and tradeoffs made or relied on by the SSA, including benefits associated with additional costs. Although the rationale for the selection decision must be documented, that documentation need not quantify the tradeoffs that led to the decision.

5.6.3.3 New FAR Part 15 Source Selection Techniques

In 1997, FAR Part 15 (Contracting by Negotiation) was thoroughly revised to conform with FARA. A number of the new provisions specifically affect source selection and provide for "efficient" full and open competition. These are described below.

5.6.3.3.1 Oral Presentation

FAR 15.102 permits the use of oral presentations by offerors to substitute for or augment written information. Use of oral presentations as a substitute for portions of a proposal can

"best and final offer."

be very effective in streamlining the source selection process.

Information pertaining to areas such as an offeror's capability, past performance, work plans or approaches, staffing resources, transition plans, or sample tasks (or other types of tests) may be suitable for oral presentations. It is important to define in advance the scope and content of exchanges that may occur between the Government's participants and the offeror's representatives as part of the oral presentations, including whether or not discussions will be permitted during oral presentations.

5.6.3.3.2 Advisory Multi-Step Process

The advisory multi-step process provides a way to notify potential offerors of the likelihood of their success with respect to a particular acquisition.

Under provisions at FAR 15.202, an agency may publish a notice that generally describes a need and invites potential offerors to submit specified information for the government's assessment. After evaluating all responses in accordance with the criteria stated in the notice, the agency advises each respondent in writing either that it will be invited to participate in the acquisition or, based on the information submitted, that it is unlikely to be a viable competitor (for specified reasons). This notice does not eliminate the contractor, Contractors may still choose to participate in the acquisition.

5.6.3.3.3 Competitive Range Limited for **Purposes of Efficiency**

Another technique to provide for efficient full and open competition is detailed at FAR 15.306(c): the establishment of a competitive range limited for purposes of efficiency.

After evaluation of all proposals, an agency may elect to "establish a competitive range comprised of all of the most highly rated proposals." Further, the "contracting officer may

⁶⁶ The term "final proposal revision" replaces the term

determine that the number of most highly rated proposals that might otherwise be included in the competitive range exceeds the number at which an efficient competition can be conducted." In such cases, provided the solicitation notified offerors that the competitive range can be limited for purposes of efficiency, "the contracting officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals." This technique permits the agency to limit the number of offerors with whom discussions (negotiations) will be held.

5.6.3.3.4 Bargaining

Negotiations⁶⁷ (also called discussions) now may include "bargaining." Bargaining includes persuasion, alteration of assumptions and positions, give-and-take, and it may apply to price, schedule, and/or technical requirements, type of contract, or other terms of a proposed contract.

Although this description suggests that bargaining may result in altering the requirement, there are limits to the effects of bargaining. FAR 15.306(d)(2) indicates that the "primary objective of discussions is to maximize the Government's ability to obtain best value, based on the requirement and the evaluation factors set forth in the solicitation." [Emphasis added.] Fundamental procurement principles dictate that contractors should compete on a level playing field, for a published requirement, under announced evaluation factors. Allowing bargaining to affect those fundamental principles is risky.

5.7 PARTNERING FOR A WIN-WIN CONTRACT

As the acquisition forms, it is important to construct a "partnering" relationship between

⁶⁷ "Negotiations" are exchanges, in either a competitive or sole source environment, between the Government and offerors, that are undertaken with the intent of allowing the offeror to revise its proposal.

the Government and the contractor using tools such as performance-based contracting, wellchosen contract types and contract incentives, and well-planned evaluation and reporting on contractor performance.

Why is this performance-centered relationship necessary? Traditionally, agencies have crafted contracts in which the only objective was for the contractor to meet the contract's minimum standards of performance. In many cases, the contractor received little or no credit, or even recognition, if the standard was exceeded. However, the contractor was very likely to get a lot of attention for failure to perform. Many contractors quickly learned that expending effort and funds to exceed minimums was of little benefit. A dollar saved in minimally meeting the standard, or providing marginal performance, was a dollar profit.

A more customer-focused, "partnering" approach that encourages superior performance breaks this cycle. By using incentives tailored to the agency's performance objectives, both the agency and contractor "win" when the objective is met and the incentive earned. "It simply makes good business sense to provide the proper contract motivations to encourage high-quality contractor performance. One way to accomplish this business goal is to 'craft' acquisition strategies that make effective use of incentives."68 Incentive strategies include the use of incentive contracts, exercise of additional contract options, award of an additional module under a modular contracting approach, and payment strategies that tie payment to performance.

Another way to achieve this change is to include in the contract a provision for a "customer process improvement working group." To do so, the solicitation should request offerors to identify in their proposals what they

⁶⁸ Acquisition Directions Advisory, "Incentive Strategies for Performance-Based Contracting," by Acquisition Solutions, Inc.

consider to be that contract's (or task order's) significant indicator of customer satisfaction. In other words, what performance measures can be used to identify how satisfied the customer is with the service or product being received? (This information also serves as excellent input to the government's evaluation of the offeror's understanding of the requirement.) These measures are then compared to the agency's performance objectives in preparation for negotiation of contractual performance goals and reporting requirements.

After award, the contractor and Government should meet on a periodic basis to track progress against the metrics. More importantly, during these meetings, the contractor and Government work together to identify and remove obstacles to improved performance. Statements such as "if the Government would do X, then we can improve the delivery metric by Y%," should be the norm during these discussions.

In addition to an improved working relationship focused on customer satisfaction, there are a host of benefits associated with this approach. For example, the collected data could past-performance reports. directly feed Showing that a contractor exceeded delivery time by 45% is much more useful performance data than the "how happy are you with performance on a scale of 1 to 5" approach. Additionally, the metrics could be used as a basis to reward the contractor through incentive or award fees, or even share-in-savings arrangements. This approach is one means by which an effective acquisition can start a more beneficial cycle—the more successful the contractor, the happier the customers, the more successful the program office and agency-leading to more effective Government.

5.7.1 Effective Contractor Performance Measures

To develop an effective win-win contract, the acquisition team should remember that each acquisition is unique and carries its own risks, challenges, and objectives. Thus, the performance measures used in one acquisition may not be relevant and should not necessarily be applied to another. It is essential that the acquisition team tailor the contractor's performance measures to support the acquisition's performance objectives.

For example, an agency acquiring information technology maintenance services could decide to track such attributes as time-to-respond, location of spare parts, educational qualifications of the maintenance personnel, time-todispatch repair technicians, and overtime However, when acquiring hours incurred. maintenance services, the only meaningful measure is the time required to fix the equipment. In this example, time-to-repair metrics may be the *only* attribute necessary. In other tasks, such as customer support services, time-to-respond may be an effective measure of contractor responsiveness. The question to ask is, "Will this measure directly support the intended result?"

The COTR, in conjunction with the program users and manager, is normally responsible for identifying the performance measures that best support the program's intended performance improvements. Exhibit 5-2 provides examples of attributes related to performance issues and categories that might be found in software development programs for both non-developmental and developmental tasks.

5.7.2 The Link between Contractor Performance and Agency Performance

Regardless of the type of acquisition—whether ordering from an existing contract or issuing a solicitation—the acquisition team should establish a link between the contractor's performance objectives and the

formance objectives and the program's per-

| Issues | Measurement Category | Question Addressed | |
|--|--------------------------------------|---|--|
| Schedule and Progress | Milestone Performance | Is the program meeting scheduled milestones? | |
| Small, Small Disadvantaged, and Women- Owned Small Business Subcontracting | Program | Has the contractor performed in accordance with its socioeconomic plan? | |
| Product Quality | Defect Profile | What was the quality in terms of depth of analysis? | |
| Development Performance | Productivity | Was the contractor responsive to Government objectives and concerns? | |
| Resources and Cost | Staff Profile | What level of quality of staff did the contractor provide? | |
| | Cost Performance | How accurate is the contractor's estimation process? | |
| DEVELOPMENT AND INTE | GRATION TASKS | | |
| Issue | Measurement Category | Question Addressed | |
| Schedule and Progress | Milestone Performance | Is the program meeting scheduled milestones? | |
| | Work Unit Progress | How are specific activities and products progressing? | |
| | Schedule Performance | Is program spending meeting schedule goals? | |
| | Incremental Capability | Is capability being delivered as scheduled? | |
| Resources and Cost | Effort Profile | Is effort being expended according to plan? | |
| | Staff Profile | Are qualified staff assigned according to plan? | |
| | Cost Performance | Is program spending meeting budget objectives? | |
| | Environment Availability | Are necessary facilities and equipment available as planned? | |
| Growth and Stability | Product Size and Stability | Are the product size and content changing? | |
| | Functional Size and Stability | Are the functionality and requirements changing? | |
| | Target Computer Resource Utilization | Is the target computer system adequate? | |
| Product Quality | Defect Profile | Is the software good enough for delivery to the user? | |
| | Complexity | Is the software testable and maintainable? | |
| Development Performance | Process Maturity | Will the developer be able to meet budgets ar schedules? | |
| | Productivity | Is the developer efficient enough to meet current commitments? | |
| | Rework | How much breakage due to changes and errors has to be handled? | |
| Technical Adequacy | Technology Impacts | Is the planned impact of the leveraged technology being realized? | |

Adapted from: Practical Software Measurement: A Guide to Objective Program Insight

SOFTWARE DEVELOPMENT METRICS Exhibit 5-2

Using the Department of Education example introduced in Chapter 3, the program manager could establish a performance strategy like the following:

- *Mission Goal*. Ensure access to post-secondary education and lifelong learning.
- Objective. Post-secondary student aid delivery and program management is efficient, financially sound, and customerresponsive.
- Core program strategy. An integrated, accurate, and efficient student aid delivery system, including (in part) the supporting strategies to (1) integrate the multiple student aid databases based on student-level records and (2) increase the community's use of the Department of Education's web site as a principal source of financial aid information, programmatic and technical publications, and software.
- Program measures. Usage, measured by "hits" on the home page, numbers of downloads, and e-mail comments or requests for additional information.
- *Program measures*. Quality and variety of methodologies used to promote the web site (number of advertisements placed on radio, television and print media).
- Contractor measures. Acceptance testing of integration (seamless access to information from multiple databases), evidence of test runs for accuracy checks, and customer feedback on the system's ease of use.

5.7.3 Performance-Based Contracting

The ultimate means of incorporating performance considerations in a contract is by adopting performance-based contracting. Current policies require that agencies use performance-based contracting to the maximum extent practicable. This provision means that

requirements are stated in terms of the results to be achieved rather than the process to be followed.

The "Report on the Performance-Based Service Contracting Pilot Project" issued by OFPP (May 1998) indicates that performance-based contracting "can make a major contribution toward increasing the value of contracted services" and is consistent with the goals of GPRA. This affirmation acknowledges the tight link between performance-based contracting and GPRA.

The most effective means of achieving performance-based contracting is to use, as a foundation for the acquisition, the performance plans (of the program to be supported by the technology) that are required under GPRA. By incorporating appropriate aspects of this information in an acquisition, the agency can respond to current OMB mandates for relating acquisitions to mission and establishing performance goals—and may be able to develop a performance-based statement of work based on performance plan information.

Exhibit 5-3 illustrates the relationship between performance planning and performance-based acquisition. The left column indicates key GPRA strategic plan requirements, the center column presents related information in the annual performance plans, and the right column indicates *how the information relates to and can be incorporated in an acquisition* to meet the requirements of FASA.

Note that, while the GPRA performance goals should be the foundation for performance-based contracting, more detail may be required to expand the fundamental program performance goals into the cost, schedule, and performance goals required by FASA for acquisitions. This foundation is written into a performance work statement (PWS).

| GPRA Strategic Plan Requirement | Related Annual GPRA Performance Plan Requirement | Incorporation in Acquisition |
|--|--|---|
| A comprehensive <i>mission</i> statement covering the major functions and operations of the agency. | No counterpart. | Establishes the function to be supported by the technology as central to achievement of the agency's mission, answering in part the first "pesky question" — and makes clear to contractor(s) the mission-related role of the contract. |
| General goals and objectives, including outcome-related goals and objectives, for the major functions and operations of the agency. | Performance goals, expressed in an objective, quantifiable, and measurable form, that define the level of performance to be achieved by a program activity. | Enables the statement of the requirement to address desired outcomes, placing a degree of performance burden on the contractor. [Note: For all but major acquisitions, the GPRA performance goals may need to be expanded to detail the cost, schedule, and performance goals required by FASA.] |
| A description of how the goals and objectives are to be achieved, including a description of the operational processes, skills and technology, and the human, capital, information, and other resources required to meet those goals and objectives. | The operational processes, skills and <i>technology</i> , and the human, capital, <i>information</i> , or other resources required to meet the performance goals. [Note: the description in the annual plan may be more detailed than that in the strategic plan.] | May be used to flesh out the statement of requirements in terms of an approved (by agency, OMB, and Congress) approach and required resources. |
| An identification of those key factors external to the agency and beyond its control that could significantly affect the achievement of the general goals and objectives. | No counterpart. | Addresses key elements of risk that may be appropriate for inclusion in the solicitation to obtain offeror recommendations on risk mitigation and management. |
| A description of the <i>program</i> evaluations used in establishing or revising general goals and objectives, with a schedule for future program evaluation. | Performance indicators to be used in measuring or assessing the relevant outputs, service levels, and outcomes of each program activity. The basis for comparing actual program results with the established performance goals. The means to be used to verify and validate measured values. | Permits development of a complementary contractor evaluation process (to the extent that the contractor will be responsible for meeting performance goals and objectives) that can feed into the program evaluation process. [Note: For all but major acquisitions, the GPRA performance indicators may need to be expanded to detail how to measure the cost, schedule, and performance goals required by FASA.] |

PERFORMANCE PLANNING AND PERFORMANCE-BASED ACQUISITION Exhibit 5-3

In addition to the PWS, the acquisition team will need to prepare a quality assurance plan (QAP) that identifies the measures, methods of measurement, and schedules the team will use to assess the quality of deliverable products or services. In essence, the QAP defines what the acquisition team must do to ensure that the contractor has performed in accordance with the PWS. This definition may range from a one-time inspection to periodic in-process or random sample inspections. The QAP should be prepared in conjunction with the PWS to ensure a solid link between a contract's performance requirements and the measurement plan.

As these plans are being prepared, it is important to consider costs—as the team did when addressing performance during business For example, while an earnedplanning. value management system is an excellent tool, providing program managers with a clear picture of the contractor's cost, schedule, and performance status at a given point in time, preparing such reports is not "free." It has been estimated that the implementation of a performance measurement process of this kind can add from 1 to 5% to the total IT contract cost. Because earned value reporting does add considerable overhead to the cost of the program, it should only be included when the program's cost and risk warrant its use. Less costly measurement methods are better suited to the majority of IT acquisitions.

Regardless of approach, the acquisition team should request contractors to address the planned performance strategy in their proposals to ensure that the measures are relevant, realistic, effective, and not unduly burdensome. Furthermore, there may be a cost-effective commercial alternative, because IT contractors typically employ their own quality control programs to measure their performance. While there may be a wide disparity in the comprehensiveness of the programs, matching the agency's performance measures to those already being tracked by the con-

tractors will reduce the administrative burden and costs for all concerned.

5.7.4 Selection of Contract Type

The selection of contract type—which, at its most fundamental level, establishes the allocation of risk between the Government and the contractor—depends at least in part on the acquisition approach. Some of the acquisition methods described in this chapter involve ordering from existing contracts. In such cases, the contract type and ordering methodology are already established. In other cases, the type of contract that may be used is limited by the acquisition method.

For example, only firm-fixed-price contracts or fixed-price with economic price adjustment contracts are used for commercial item acquisition under FAR Part 12 and for sealed bidding under FAR Part 14.

FAR 16.104 describes many factors that may affect the selection of contract type. These factors include:

- *Price competition*. Normally, effective price competition results in realistic pricing, and a fixed-price contract is ordinarily in the Government's interest.
- *Price analysis*. Price analysis, with or without competition, may provide a basis for selecting the contract type.
- Cost analysis. In the absence of effective price competition, and if price analysis is not sufficient, the cost estimates of the offeror and the Government provide the bases for negotiating contract pricing arrangements. It is essential that the uncertainties involved in performance and their possible impact upon costs be identified and evaluated, so that a contract type that places a reasonable degree of cost responsibility upon the contractor can be negotiated.

- Type and complexity of the requirement. Complex requirements, particularly those unique to the Government, usually result in greater risk assumption by the Government. This fact is especially true for complex research and development contracts, when performance uncertainties or the likelihood of changes makes it difficult to estimate performance costs in advance. As a requirement recurs, or as quantity production begins, the cost risk should shift to the contractor, and a fixed-price contract should be considered.
- *Urgency of the requirement*. If urgency is a primary factor, the Government may choose to assume a greater proportion of risk, or it may offer incentives to ensure timely contract performance.
- Period of performance or length of production run. In times of economic uncertainty, contracts extending over a relatively long period may require economic price adjustment terms.
- Contractor's technical capability and financial responsibility.
- Adequacy of the contractor's accounting system. Before agreeing on a contract type other than firm-fixed-price, the contracting officer shall ensure that the contractor's accounting system will permit timely development of all necessary cost data in the form required by the proposed contract type. This factor may be critical when the contract type requires price revision while performance is in progress, or when a cost-reimbursement contract is being considered, and all current or past experience with the contractor has been on a fixed-price basis.
- *Concurrent contracts*. If performance under the proposed contract involves concur-

- rent operations under other contracts, the impact of those contracts, including their pricing arrangements, should be considered.
- Extent and nature of proposed subcontracting. If the contractor proposes extensive subcontracting, a contract type reflecting the actual risks to the prime contractor should be selected.
- Acquisition history. Contractor risk usually decreases as the requirement is repetitively acquired. Also, product descriptions or descriptions of services to be performed can be defined more clearly.

Selecting the contract type can be a matter for negotiation and requires the exercise of sound judgment. Contract type and prices are closely related and should be considered together. The objective is to negotiate a contract type and price (or estimated cost and fee) that will result in reasonable contractor risk and provide the contractor with the greatest incentive for efficient and economical performance.

Incorporation of incentives (based on cost, performance, and/or delivery) is an essential element in selecting and tailoring the contractual approach to the requirement. The most effective contracts are those constructed with a "win-win" goal.

Contract types vary according to the degree and timing of the responsibility assumed by the contractor for the costs of performance, as well as the amount and nature of the profit incentive offered to the contractor for achieving or exceeding specified standards or goals. Most contract types fall into two broad categories:

- Fixed-price contracts
- Cost-reimbursement contracts

The specific contract types range from firm-fixed-price, in which the contractor has full responsibility for the performance costs and resulting profit (or loss), to cost-plus-fixed-fee, in which the contractor has minimal responsibility for the performance costs and the negotiated fee (profit) is fixed. Exhibit 5-4 lists the various types of contracts. FAR Part 16 describes these contracts and their general applicability and limitations in detail.

Both categories of contracts, fixed price and cost-reimbursement, include various incentive contracts, in which the contractor's responsibility for the performance costs and the profit or fee incentives offered are tailored to the uncertainties involved in contract performance.

Incentive contracts are appropriate when a firm-fixed-price contract is not appropriate, and the required supplies or services can be acquired at lower costs and, in certain instances, with improved delivery or technical performance, by relating the amount of profit or fee payable under the contract to the contractor's performance. Incentive contracts are designed to obtain specific acquisition objectives by:

- Establishing reasonable and attainable targets that are clearly communicated to the contractor.
- Including appropriate incentive arrangements designed to motivate contractor efforts that might not otherwise be emphasized and to discourage contractor inefficiency and waste.

Since it is usually to the Government's advantage for the contractor to assume substantial cost responsibility and an appropriate share of the cost risk, fixed-price incentive contracts are preferred to cost-reimbursement incentive contracts when contract costs and performance requirements are reasonably certain.

| Type of Fixed-Price Contract | FAR Citation |
|--|------------------|
| Firm-fixed-price contracts | 16.202 |
| Fixed-price contracts with economic price adjustment | 16.203 |
| Fixed-price incentive contracts | 16.204, 16.403 |
| Fixed-price incentive (firm target) contracts | 16.403-1 |
| Fixed-price incentive (successive targets) contracts | 16.403-2 |
| Fixed-price contracts with award fees | 16.404 |
| Fixed-price contracts with prospective price redetermination | 16.205 |
| Fixed-ceiling-price contracts with retroactive price redetermination | 16.206 |
| Firm-fixed-price, level-of-effort term contracts | 16.207 |
| Type of Cost-Reimbursement Contract | FAR Citation |
| Cost contracts | 16.302 |
| Cost-sharing contracts | 16.303 |
| Cost-reimbursement incentive contracts | 16.405 |
| Cost-plus-incentive-fee contracts | 16.304, 16.405-1 |
| Cost-plus-award-fee contracts | 16.305, 16.405-2 |
| Cost-plus-fixed-fee contracts | 16.306 |

TYPES OF CONTRACTS

Exhibit 5-4

5.7.5 Other Types of Contracts Used in IT Acquisitions

In addition to the types of contracts listed in Exhibit 5-4, there are three contract types often used in the acquisition of information technology resources:

- IDIQ contracts
- Time and material (T&M) contracts
- Labor-hour contracts

5.7.5.1 Indefinite-Delivery, Indefinite-Quantity Contracts

An IDIQ contract provides for an indefinite quantity, within stated limits, of supplies or services to be furnished during a fixed period, with deliveries or performance to be scheduled by placing orders with the contractor. Delivery order contracts for supplies, task order contracts for services, GWACs, and multiagency contracts are IDIQ contracts. (See section 5.3.2.)

An IDIQ contract may be used when the Government cannot predetermine, above a specified minimum, the precise quantities of supplies or services that will be required during the contract period, and it is inadvisable for the Government to commit itself for more than a minimum quantity. An indefinite-quantity contract should be used only when a recurring need is anticipated.

FASA establishes a general preference for multiple awards on all types of task order and delivery order contracts—but for certain requirements for advisory and assistance services, multiple awards are mandatory.

5.7.5.2 Time-and-Materials contract

A time-and-materials (T&M) contract provides for acquiring supplies or services on the basis of:

• Direct labor hours at specified fixed hourly rates that include wages, overhead, general and administrative expenses, and profit.

 Materials at cost, including, if appropriate, material handling costs as part of material costs.

A T&M contract may be used only when it is not possible at the time of placing the contract to estimate accurately the extent or duration of the work or to anticipate costs with any reasonable degree of confidence. This type of contract provides no positive profit incentive to the contractor for cost control or labor efficiency. Therefore, appropriate Government surveillance of contractor performance is required to give reasonable assurance that efficient methods and effective cost controls are being used.

A T&M contract may be used (1) only after the contracting officer executes a determination and findings that no other contract type is suitable and (2) only if the contract includes a ceiling price that the contractor exceeds at its own risk. The contracting officer must document the contract file to justify the reasons for and amount of any subsequent change in the ceiling price.

5.7.5.3 Labor-Hour contract

A labor-hour contract is a variation of the T&M contract (with the same application and limitations), differing only in that the contractor does not supply materials. This type of contract, also referred to as a level-of-effort contract, is not stated in terms of deliverables, but of hours available to be spent. The Government is not assured of the delivery of a specific product or service, only of (at best) the contractor's best effort.

5.7.6 Incentives and Other Techniques

The incentives developed for use in incentivetype contracts may relate to cost, performance, and delivery and are tied to desired targets rather than minimum acceptable requirements.

Traditionally, most incentive contracts include only cost incentives. These take the

form of a profit or fee adjustment formula and are intended to motivate the contractor to effectively manage costs. No incentive contract may provide for other incentives without also providing a cost incentive (or constraint).

Incentive contracts may also include performance incentives, which reward contractors for achieving a degree of excellence in performance above minimum acceptable levels. These types of incentives relate well to performance-based contract approaches. Delivery incentives may also be adopted when improvement to a required delivery schedule is an important Government objective.

When the use of an incentive contract is desirable (for purposes of motivation), but contractor performance cannot be measured objectively, award fees may be used. Award fees are additional fixed prices that are paid for satisfactory contract performance.

Another innovative method of creating a "win-win" environment is a share-in-savings contract arrangement (as prescribed in ITMRA). In this arrangement, the agency gives the contractor a share in the savings realized as a result of the contractor's efforts in performing the contract. While this type of arrangement is new to the IT field, it has been used by agencies for other requirements where good metrics are available. An example is energy savings, for which agencies have objective historical data on energy usage (metering). The contractor can then implement energy-saving measures at its own expense. Its "reward" is a share of the savings realized in overall reduced energy consumption costs. An ideal area for use of these type of arrangements for the IT community is the optimization of both long-haul and access telecommunications facilities.

5.7.6.1 Modular Contracting

Modular contracting (see Section 2.2.10) is an important incentive technique because the work is awarded in successive chunks. The contractor's likelihood of additional business is dependent on successful performance of the current module. Agencies are required by law and regulation to use modular contracting "to the maximum extent practicable" for acquisition of a major system of information technology.

5.7.6.2 Use of Pilots and Prototypes

A type of modular contracting—that of contracting for pilots and prototypes—is also an important incentive strategy. This strategy enables system performance to be tested before the Government commits to full development, deployment, and expenditure.

5.8 CONCLUSION

At the conclusion of the acquisition phase, the acquisition team will have crafted the acquisition approach, addressing such vital areas as competitiveness, publicizing, source selection, and incentive and win-win contractual strategy. With the issuance of the order or award of the contract, the acquisition team is ready to move into contract performance.

CHAPTER 6. CONTRACT PERFORMANCE

There is an important new emphasis in the post-award performance phase of acquisition that can be summed up in four words: performance, measurement, teamwork, and management. The focus of acquisition, up until award, is on establishing the required performance improvements (business planning), determining the means of obtaining contractor support in meeting performance goals (acquisition planning), and conducting the procurement to select the contractor best qualified at a reasonable cost to make those improvements (acquisition). With award, the acquisition moves into the performance phase, during which the Government and contractor cooperate to perform, measure, manage, and achieve the desired improvements.

By the time the contract is awarded, the performance structure is in place—meaning that the agency has hierarchical, interrelated performance goals (see Exhibits 3-1 and 6-1). The strategic foundation and direction is provided by the agency's performance goals (as required by GPRA). The relationship of the information technology investment to agency program performance is established (as required by ITMRA). The acquisition has specific cost, schedule, and performance goals, which were the basis for funding (as required by FASA). The performance-based contract establishes the contractor's performance requirements.

Achieving the performance goals requires measurement throughout the performance structure. This requirement means that the acquisition team, and especially the program manager, should address such questions as:

• Is the acquisition achieving its cost, schedule, and performance goals?

- Is the contractor successfully designing and implementing the system to meet or exceed the contract's performance-based requirements?
- How effective is the contractor's performance in meeting or contributing to the agency's program performance goals?
- Is the system as implemented meeting performance objectives and return-on-investment goals?
- Have the contractor's and agency's program efforts contributed to the agency's strategic performance objectives?

Measuring and managing a project to the attainment of performance goals and objectives requires the continued involvement of the acquisition team, especially the program manager. It also requires considerable involvement by the acquisition team's new members—contractor personnel.

This contract performance phase of the acquisition life cycle is guided far less by law, regulation, and policy than those described in preceding chapters. To a large degree, the management of contract performance is guided by the contract's terms and conditions and is achieved with the support of the business relationships and communications established between the contractor and the Government. It is in the best interest of all parties concerned that the contract be successful.

6.1 PURPOSE OF CHAPTER

This chapter describes the processes required to manage effectively the contract performance phase of an information technology system.

6.2 OVERVIEW OF CHAPTER

This chapter addresses the key elements and good business practices involved in successful management of contract performance. Specifically, these elements include:

- Roles and responsibilities
- Project initiation
- Communications and relationships
- Performance measurement
- Inspection and acceptance
- Changes to contracts
- Performance failure
- Business planning initiation

6.3 ROLES AND RESPONSIBILITIES

Often the members of the acquisition team take on new roles during the contract performance phase. For this reason, this section briefly describes the roles and general responsibilities of contract management and administration. Typically, these responsibilities are shared between the program office (program manager and/or COTR) and contracting office (CO and/or ACO).

The purpose of acquisition (in part) is "to deliver on a timely basis the best value product or service to the customer." Meeting this objective requires the continued involvement of the program office in duties classified as contract administration as well as those more accurately described as program (or project) management.

Program management is concerned with maintaining the project's strategic focus and monitoring and measuring the contractor's performance. The program manager is ultimately responsible for ensuring that the contractor meets the contract's performance objectives on time and within budget. On

smaller acquisitions, the COTR may fill this role.

Contract administration involves the execution of the administrative processes and tasks necessary to see that the contract's terms and procedures are met, by both contractor and agency. FAR Subpart 42.3 identifies the numerous but specific contract administration functions that may be delegated by the CO to a contract administration office (CAO). In such cases, the CAO should assign responsibility (in writing) for such duties to a specific individual, referred to as an administrative contracting officer (ACO).

Those typically responsible for various acquisition-related tasks during contract performance are described briefly in the following sections. (More complete descriptions are in Section 2.4.)

6.3.1 Program or Project Manager

All large and mission-critical acquisitions should have a program or project manager (PM) who leads a team of acquisition specialists to ensure that the program meets its goals and objectives. The PM is best equipped to make mission-oriented judgments and decisions when issues and problems arise that could affect agency programs. To ensure that the project stays on course, the PM should monitor contractor performance and be involved in performance measurement and reporting. The PM should consider not just the contractor's required performance in accordance with the contract's terms and conditions, but also the effect of the contractor's performance on the agency's obligation to meet related programmatic goals and objectives.

The function of project management differs from—and does not dilute the importance of —the function of the CO. In smaller, less complex or critical acquisitions, program or project management functions may be allo-

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⁶⁹ FAR 1.102

cated between the CO (or ACO) and the COTR.

6.3.2 Contracting Officer

The CO's principal responsibility is to ensure that the requirements of law and regulation are being met by both parties. In addition, the CO is ultimately responsible for giving contractual direction to the contractor. The CO makes all decisions regarding the contract requirements, interpretations, and direction. If changes are needed, such as in delivery schedules or requirements, only the CO can modify the contract.

6.3.3 Administrative Contracting Officer

The CO may designate an ACO to assist with specified matters of contract administration. This function may include contractor performance evaluation and negotiation of prices, when specifically authorized by the CO. An ACO is most likely to be appointed when the contract is large or complex, or when contract performance is geographically dispersed.

6.3.4 Contracting Officer's Technical Representative

In smaller acquisitions that do not have a program or project office, the COTR is often the key person for technical aspects of contract management. The COTR has the functional, programmatic, or technical expertise necessary to ensure that the contractor's performance meets the contract's requirements. The COTR is responsible for monitoring contractor performance and ensuring that the technical aspects of the contract are being met. His or her responsibilities should be designated by the CO.

6.3.5 Program Users

In most contracts for information technology resources, it is important that program staff are involved in contract management, primarily to oversee and assess the contractor's performance. This involvement is necessary because programmatic considerations significantly affect whether performance is and remains satisfactory—and may drive changes to the contract that are necessary, feasible, and acceptable during the life of the contract.

6.3.6 Contractor

Once the contract is awarded, the contractor becomes an important member of the acquisition team. After all, it is the contractor's responsibility to deliver the products and services required by the contract.

If the contract has been structured correctly, and if the contractor and the Government establish good lines of communication, the process should be a win-win relationship. It is in the Government's interest to provide all the support (such as information and timely approvals) needed by the contractor to perform well. It is in the contractor's interest to perform in a timely manner and at a high level of quality so that the product or service delivered receives favorable performance ratings.

6.4 PROJECT INITIATION

Projects are typically initiated by issuing an order or providing an executed contract to the successful offeror (and debriefing unsuccessful offerors). In addition, it is often advisable—and sometimes required by the contract—to conduct a "kick-off meeting" or, more formally, a "post-award conference," attended by those who will be involved in contract performance.

Even though a post-award conference may not be required by the contract, the CO may decide that a post-award conference is advisable, based on such factors as:

Type, value, and complexity of the contract.

⁷⁰ See FAR Subpart 15.5.

⁷¹ FAR Subpart 42.5 addresses post-award orientation.

- Degree of interaction required between the contractor and Government personnel.
- Complexity and acquisition history of the product or service.
- Urgency of the delivery schedule and relationship of the product or service to critical programs.
- Contractor's performance history and experience with the product or service.
- Contractor's status, if any, as a small or small disadvantaged business, or a womenowned small business concern.

This meeting helps both Government and contractor personnel achieve a clear and mutual understanding of contract requirements and should further establish the foundation for good communications and a win-win relationship.

6.5 COMMUNICATIONS AND RELATIONSHIPS

One important element of reform has been the promotion of improved Government-industry communications. Rather than arms-length relationships (governed by detailed "rules of engagement"), Government and industry now more effectively employ open communications and agency-contractor teamwork and "partnering" efforts. Agencies that have successfully established partnering relationships with contractors advise, however, that such relationships do not happen by chance. The prerequisites are carefully defined needs, standards, and methods of measurement on which to build a trusting partnership. With the fundamentals in place, a partnering approach can markedly improve contract performance.

6.6 PERFORMANCE MEASUREMENT

As indicated previously, the agency's performance structure is already in place. It is a multi-tiered, hierarchical structure that includes the agency's contractors. Their efforts must be measured to determine whether they achieve the performance goals of their contracts—and to determine the degree to which their efforts help the agency achieve its program and agency performance goals as well. (See Exhibit 6-1.)

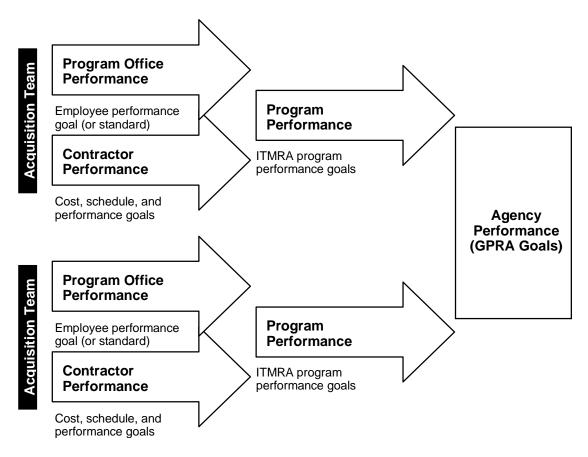
The foundation of this performance structure rests on the performance of agency employees and contractor staff, who, within the partnership that the contract establishes, seek to improve agency program performance. From the perspective of the program manager, both the individual and combined efforts of agency employees and contractors are important—and are measured in terms of:

- Employee performance (under performance-based appraisal systems).
- Contractor achievement of the cost, performance, and schedule goals set forth in the contract.

Exhibit 6-1 depicts this cooperative effort, with the various acquisition teams serving as a link between the contractors and program offices. Both the contractor and program office have performance objectives that often are interrelated and support higher level goals. Clearly, contract performance is not an isolated event, disassociated from the efforts of agency employees, program staff, and agency management.

Effective contract performance is a partnership. Agency employees and contractor staff must work together, not just to make the contract a success, but also (taking the larger view) to bring success to the program the contract supports. Successful contractor performance contributes to successful agency programs, which contribute to successful agency performance overall.

⁷² Post-award conferences are encouraged to assist such small businesses.



MULTI-TIERED, HIERARCHICAL PERFORMANCE STRUCTURE
Exhibit 6-1

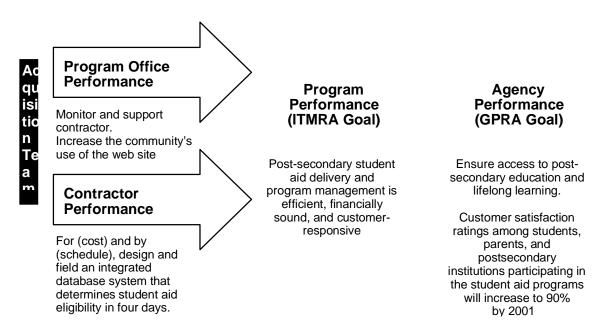
To further illustrate this concept, consider the Department of Education's core strategies for an "integrated, accurate, and efficient student aid delivery system" that were discussed in Section 3.4.1. The core strategies are to:

- Integrate the multiple student aid databases based on student-level records.
- Increase the community's use of the Department of Education's web site as a principal source of financial aid information, programmatic and technical publications, and software.

To achieve an integrated, accurate, and efficient student aid delivery system requires the efforts of both the contractor and agency staff. The contractor's role is to put in place a system that serves as an efficient and effective route for electronic filing, including cross-

checking with other systems or databases to make rule-based eligibility determinations. The agency's role is to monitor and support the contractor's performance and to conduct outreach efforts that increase the public's use of the web site. Therefore, both the program office's and contractor's efforts to streamline the process and make better use of technology contribute to achievement of this goal—and the efforts of both are reported in various ways, as illustrated in Exhibit 6-2.

In addition to understanding the performance structure, it is important to understand that contract performance measurement is part of a performance continuum that spans time. If measurement were limited to the ITMRA and GPRA goals shown in Exhibit 6-2, there would be no measurement of the contractor's performance until the system was fielded and



EXAMPLE: PERFORMANCE STRUCTURE Exhibit 6-2

in operation. In fact, in some cases, the ITMRA and GPRA measures of program success may not occur until years after the contractor has completed the development effort. Therefore, a contract typically will have interim milestones (identified in the acquisition plan), such as delivery of system design concept and completion of prototype testing. In addition, even without a product to evaluate, agencies can monitor both the quality and effectiveness of the services being applied to the system's development. These goals would be specific to contract performance and, in most cases, would not directly affect ITMRA and GPRA goals as long as contract performance is successful.

6.6.1 Understanding the Performance Reporting Requirements

There are many types of performance reporting that the agency may require of the acquisition team and program management. For example, agency procedures may establish special requirements for acquisition teams to report to the agency's investment review board regarding the status of meeting a major

acquisition's cost, schedule, and performance goals. The team may also be responsible for performance reporting under GPRA (for example, when the contractor's performance directly supports a GPRA performance goal). The guidelines for these two types of performance reporting would be in agency-issued documents (and are not addressed in this guide).

However, one type of performance reporting requirement—for evaluation of the contractor's performance—is dictated by the contract terms and conditions and by OFPP Policy Letter 92-5 and FAR 42.15. This requirement is sometimes referred to as past-performance evaluation.

The FAR now requires that agencies evaluate contractor performance for each contract in excess of \$100,000.⁷⁴ The performance

⁷³ FASA establishes the policy that agencies "should achieve, on average, 90 percent of the cost, performance, and schedule goals established for major acquisition programs" of the agency.

⁷⁴ Check also your agency implementing regulations. OFPP has granted waivers to some agencies that set the threshold higher (such as \$1,000,000).

evaluation and report is shared with the contractor, who has an opportunity to respond. The report then may be shared with other agencies that use this past-performance information in evaluations for their contract awards. Given the criticality of this information to a contractor's future business, it is very important to conduct a fair and impartial evaluation and to give the contractor ample opportunity to respond. Further, care must be taken not to penalize the contractor for performance affected by circumstances outside that contractor's control. (For example, if the Government or another contractor failed to provide required information in a timely fashion, then the contractor under evaluation should not be penalized.) Evaluation is a very sensitive area because of its business impact. There may be agency implementing regulations, policies, or procedures on this matter.

6.6.2 Measuring Contractor Performance

After contract award, the acquisition team must begin to measure and report on performance in accordance with:

- General reporting instructions in agency supplemental instructions.
- Acquisition-specific measurement information described, as required by the FAR, in the acquisition plan's "plan of action" under management information requirements. (See Section 4.10.2.2.)

The measurement methodology may be as simple as determining the date of delivery and completing product testing and acceptance, or as complex as an earned-value management system. (See Sections 3.4.2 and 5.7.3)

However, simply measuring performance is not enough. Measurement carries an obligation to manage. If performance improvement is not as great as anticipated, the acquisition team should take whatever action is feasible and reasonable under the circumstances to improve it. Such action may include determining problem areas, monitoring performance more closely, reallocating resources, and working with the contractor to devise methods for improvement.

6.6.3 Developing the Past-Performance Report

Contractor performance evaluations are an important part of contract management, and responsibility for preparing them should be shared by the Contracting Officer and the Program Manager or a representative (such as the COTR). In some cases, such as when products and services are provided directly to end users, the CO should incorporate end-user assessments in the performance reports. However, the CO should remember that end users are not always aware of the contract requirements and may hold contractors to an unrealistic standard. Therefore, the CO should evaluate end users' ratings and determine the true cause of any derogatory evaluations to ensure that any cited problem is truly with the contractor's performance.

The frequency of performance evaluations varies depending on the type and length of the contract and schedule of deliverables. At a minimum, evaluations are required when the work under a contract is completed. Interim evaluations are appropriate when the contract period of performance (including options) exceeds one year.

While contractor compliance with quality, timeliness, and cost control are important performance factors, business relations and customer satisfaction also provide useful insight into a contractor's approach to interacting with customers. While more subjective in nature, these categories can prove very valuable in assessing the attitudes and cooperative nature of the contractor.

6.6.4 Offering the Contractor an Opportunity to Comment

While the frequency and content of the performance evaluation is a decision of the contracting agency, the FAR requires that agencies provide contractors the opportunity to comment on past-performance evaluations and reports.

If the contractor fails to respond by the established deadline (which must be a minimum of thirty days), the CO notes that no response was received, and the agency evaluation report stands on the record. If the contractor submits a rebutting statement, the CO reviews the information to determine whether the evaluation report should be modified. If the CO modifies the original evaluation report, the contractor should be given the opportunity to review the changes and respond. However, if the CO does not modify the original evaluation report, the decision should be reviewed at a level above the CO. The ultimate conclusion on performance evaluation is the contracting agency's.

All information, including the contractor's rebutting statement, is retained as part of the evaluation report. Because the information may be used in future evaluations—by the agency or other agencies—it should be marked "source selection information" and protected from inadvertent disclosure. Evaluation reports are not retained for longer than three years after completion of contract performance.

FAR 42.15 covers contractor performance information. There may be agency implementing regulations as well.

6.7 INSPECTION AND ACCEPTANCE

Inspection involves the examination and testing of products and services to determine whether they conform to contract requirements. Acceptance is the process by which an authorized representative of the Government assumes ownership of products or approves specific services rendered as partial or complete contract performance. The rules for inspection and acceptance are in FAR Part 46.

One of the most important things to know about inspection and acceptance today is that formal Government procedures are not necessarily required in commercial item acquisition. To illustrate this point, consider how individuals buy computers, microwave ovens, and housekeeping services. We do not conduct elaborate inspection processes or issue formal acceptance documents. We rely on the manufacturers or service providers to ensure that the products or services are of acceptable quality-and we reserve the right to reject defective products or services (by return policies, complaints and correction, and withheld payment) on the few occasions when the product or service is unacceptable.

The same is true for inspection and acceptance in commercial item acquisition. For example, FAR 46.102(f) indicates that contracts for commercial items "shall rely on a contractor's existing quality assurance system as a substitute for compliance with Government inspection and testing before tender for acceptance unless customary market practices for the commercial item being acquired permit in-process inspection." FAR 12.402 indicates that the Government "will rely on the contractor's assurances that the commercial item tendered for acceptance conforms to the contract requirements," but reserves the right to refuse acceptance. Furthermore, even these approaches may be modified if they do not conform with standard commercial practices. Under these procedures, for example, an agency need not require each end user to formally accept the commercial product delivered before payment can be made.

6.8 CHANGES TO CONTRACTS

As a general rule, awarding a Government contract requires significant time and effort. The requirement is defined, sources are identified and solicited, proposals are received and evaluated, contract terms are negotiated, and awards are made. However, even with the utmost care, once awarded, most contracts are not static; they are affected by changing conditions, such as funding levels, reorganization, mission or requirement changes, technology developments, and many other factors.

Contracts frequently need adjustment and may be modified. Modifications can either be within or outside the scope of the contract, but the latter can only be executed when fully justified and approved. Out-of-scope modifications are unusual and require two special measures. First, the CO must execute a sole source justification and approval in accordance with FAR Part 6. Second, the CO must determine the appropriate method of contracting. In some instances, the most appropriate means is by contract modification rather than execution of a new contract.

"Scope of contract" is a contracting principle that establishes that changes may be made to a contract without special justification, provided those changes do not alter the basic nature and character of the contract. For example, a contract for desktop computers normally cannot be modified to provide mainframes or software development services, nor can a contract with a term of one year with four one-year options be modified to add three additional years.

When considering possible contract changes, the acquisition team must often distinguish between the existing requirement reflected by the contract and a new requirement (necessitating a new procurement). Normal changes in design, method of shipping or packing, and place of delivery can all be considered as falling within the scope of the contract. Even variations in quantity and short increases in contract term can, within limits, be handled by a contract change, rather than a new procurement. However, if the essential nature or

character of work is changed, a new procurement typically is required.

The principle of scope involves an element of fairness. Contractors have a right to know the extent and nature of the business they are competing for—and contractors who lose have a right to compete again when the extent and nature of the requirement changes.

Regardless of issues of scope, authority to modify contracts is dependent on the availability and proper appropriation of funds. FAR Part 43 addresses contract modifications and changes.

6.8.1 Contract Options

FAR 17.201 defines option as a "unilateral right *in a contract* by which, for a specified time, the Government may elect to purchase additional supplies or services called for by the contract, or may elect to extend the term of the contract." (Emphasis added.) Option clauses are included in contracts when increased requirements within the period of contract performance are foreseeable, or continuing performance beyond the original period of contract performance may be in the best interest of the agency. Optional quantities and periods of time normally are evaluated as part of the original contract evaluation.

Before exercising an option (ordering), the contracting officer must determine that all the following conditions are true.

- Funds are available.
- The requirement covered by the option fulfills an existing Government need.
- The exercise of the option is the most advantageous method of fulfilling the Government's need, price and other factors considered.
- The option was synopsized as part of the original requirement (or exempted from synopsis) in accordance with FAR Part 5.

• The contractor's performance warrants exercise of the option.

FAR Subpart 17.2 addresses contract options.

6.8.2 Technology Refreshment

Technology refreshment provisions, although traditionally included in IT contracts, ⁷⁵ are not required to give the Government authority to make modifications to the contract. Basic contract law does not assume contracts to be static; therefore, technology refreshment can take place without including a specific clause. While the inclusion of a technology refreshment provision does provide the CO with additional evidence (in the face of protest or similar action) that the Government intended to make those types of changes, its absence does not prohibit in-scope modifications.

Rather than making it easier to propose and accept changes, technology refreshment clauses can have the effect of constraining existing authority. For example, this type of statement was the norm: "Technology refreshment proposals must offer equipment and/or software whose performance is equal to or greater than that currently provided, at a price equal to or lower than the current product." The inclusion of such restrictive language can unnecessarily prevent the Government from considering products that provide significantly more capability for a marginal increase in price. Therefore, a better practice for agencies is to include only procedural and administrative information in any technology refreshment provision, not unnecessary limitations.

6.9 PERFORMANCE FAILURE

Despite the new era of communication, cooperation, and flexibility in Government contracting, and despite all good intentions, a contract may "go bad." In such instances, the Government must take the appropriate action, whether it is assessing liquidated damages or proceeding with contract termination. These measures and others, such as disputes and claims, are covered at length in the FAR and are not included here.

Both parties should try to avoid these instances. If remedial actions become necessary, the win-win situation can turn into a lose-lose one. These situations are damaging to the contractor (at least in terms of reputation and past-performance ratings) and may deprive the agency of the support and funding required to perform its mission or function successfully.

6.10 BUSINESS PLANNING INITIATION

During contract performance, the members of the acquisition team should be continually assessing new technologies and monitoring the capability of the operational system to ensure that it continues to meet users' requirements. At some point, however, the need for replacement will be evident, and the acquisition team members may resume their earlier roles and begin planning for the next (followon) acquisition. As described in Chapter 3, these planning tasks include describing the current need and its relation to mission and performance objectives, evaluating alternatives to capital assets, and preparing for investment review and budgeting. This process should begin long before the team begins to plan for and complete the final stages of the current acquisition: disposal and contract close-out. The new acquisition cycle begins before the current acquisition cycle ends.

⁷⁵ FAR 39.101 suggests that "contracting officers should consider ... the application of technology refreshment techniques," but it does not require that a special provision or clause be used.

6.11 CONCLUSION

Contract performance and performance measurement determine whether or not the agency has achieved its mission, cost, schedule, and performance goals and the degree to which the contractor's efforts have contributed to

achievement of the program and agency performance goals. The keys to this phase are teamwork, performance, measurement, and management—managing to the specified level of success.

CHAPTER 7. DISPOSAL AND CONTRACT CLOSEOUT

The final phase in the acquisition life cycle is disposal and contract closeout. This phase occurs as the replacement resources (if any) from the follow-on acquisition are being phased into operation.

The requirements and processes for disposal of information technology resources have been streamlined and decentralized in part. Formerly, the centralized IT equipment disposal system began with determining if a need for the equipment existed in the agency, either for exchange/sale or reassignment. If there was no need within the agency, it was then reported to GSA's ADP excess office and screened Governmentwide for possible use by other agencies and, in certain circumstances, by other agencies' contractors for use in support of Government contracts. If no other agencies needed the equipment, it then underwent further centralized screening as surplus equipment for possible use by state and local governments and non-profit organizations. If the equipment was not needed in those quarters, it was disposed of, by sale to the public or other means—sometimes after months had elapsed.

However, the unintended effect of these centralized screening programs was to promulgate the use in Government of outdated, obsolete equipment (with its attendant high but often hidden overhead costs). There is no longer a formal *IT-specific*, centralized interagency excess screening program. The general provisions for excess property in Federal Property Management Regulation (FPMR) 101-43 govern, requiring that equipment with an original acquisition cost over \$5,000 should be reported to GSA. However, under the provisions set forth in Executive Order (EO) 12999, "Educational Technology: Ensuring Opportunity for All Children in the

Next Century," agencies are also authorized to transfer the resources directly to schools or nonprofit educational organizations (if needed) or (if not) make the resources available for surplus screening.

7.1 PURPOSE OF CHAPTER

This chapter describes governmentwide policies for exchange/sale and disposal of resources and contract closeout. The acquisition team should also examine agency rules and procedures.

7.2 APPROPRIATENESS OF DISPOSAL

A first consideration in determining how to dispose of the resources is the appropriateness of the use of normal disposal channels. For example, IT resources modified for certain military applications should not enter normal disposal channels, and there are export controls on advanced technology.

Less obvious but more broadly problematic is the inadvertent release of sensitive information. Government computers hold sensitive and classified information on a wide range of topics, such as source selection, weaponry, and witness protection. The acquisition team should consider the appropriateness of disposal and whether special steps are required before disposal. There may be agency guidance on this issue.

7.3 EXCHANGE/SALE

When replacing IT equipment, the acquisition team should determine if the value of the resources is sufficient to offer the equipment for exchange/sale. Why give something away if its exchange or sale can benefit the program by reducing the cost of replacement equipment?

Exchange/sale authority permits an agency to "trade in" or sell equipment being replaced and to apply the proceeds toward acquisition of the new equipment.⁷⁶ This action can reduce the need for additional funding for the acquisition of replacement personal property. Using the exchange/sale authority also enables agencies to avoid the costs associated with holding the property and processing it through the normal disposal cycle. Nonethegiven shelf-life less. the and priceperformance trends of information technology, the exchange/sale option is rarely used today.77

7.4 INTERNAL AGENCY SCREENING

If equipment is no longer needed by the program that purchased it, and it will not be exchanged or sold, it should be offered to other agency users or programs. These reassignments are governed by agency procedures or accepted practices.

7.5 TRANSFER AND DONATION

FPMR 101-43 requires that equipment with an original acquisition cost over \$5,000 should be reported to GSA for excess screening. However, agencies are also authorized to transfer equipment directly to schools in accordance with EO 12999. The executive order directs agencies "to the extent permitted by law and where appropriate—to transfer computers and related peripheral tools determined to be excess to the needs of the agency directly to schools and nonprofit educational organizations." The acquisition team should examine agency rules and procedures regarding internal screening and subsequent disposal for educational purposes of IT resources no longer needed for program support. (Some

agencies have established partnerships with local schools.)

The executive order also directs agencies to:

- Identify the agency contacts needed to assist eligible recipients.
- Publicize availability of educationally useful equipment, particularly in Federal empowerment zones and enterprise communities.
- Transfer equipment (directly, whenever possible) to eligible recipients under established agency procedures for property transfers.
- Request GSA assistance in arranging the transfer of excess equipment as appropriate.
- Report annually to GSA any transfers made as part of the annual report to GSA of personal property transferred to non-Federal recipients.

When an agency has determined that its excess computer equipment is not needed by another agency—or a school or another eligible recipient under the executive order—the equipment is then available to the surplus property donation program, under the provisions of FPMR 101-44. If not transferred or donated, the equipment can be sold to the public, under the provisions of FPMR 101-45, or disposed of by other appropriate means.⁷⁸

7.6 CONTRACT CLOSEOUT

Contract closeout occurs when a contract is completed. For purposes of IT systems, the contract is considered complete when:

 $^{^{76}}$ An analogy is the trade-in or sale of a car when purchasing a new one.

⁷⁷ The provisions governing exchange/sale are in 41 CFR Part 101-46 (as amended by Federal Property Management Regulation Amendment H-197, effective February 5, 1998).

⁷⁸ Further information is available from GSA's Personal Property Management Policy Division at http://policyworks.gov/org/main/mt/homepage/mtp/mt php.htm or by calling (202) 501-3828 — or contact your local GSA property point-of-contact.

- The contractor has completed the required deliveries and the Government has inspected and accepted the supplies, or
- The contractor has performed all services and the Government has accepted these services, and
- All option provisions, if any, have expired.

Contracts are also considered complete when the Government has given the contractor a notice of complete contract termination (meaning official notification that the contract has ended).

The time at which a contract is considered complete is also affected by the type of contract. For example, files for contracts that used simplified acquisition procedures can be considered closed when the CO receives evidence of receipt of property and final payment (unless otherwise specified by agency regulations). In contrast, files for firm-fixed-price contracts that were not awarded using simplified acquisition procedures should be closed within six months after the date on which the contracting officer receives evidence of physical completion.

The office administering the contract is responsible for closing out the contract files. The process begins with a review of the status

of contract funds, with excess (unused funding authority) reported to the contracting office. The FAR contains numerous administrative duties and reports that are completed at contract closeout. These are covered in FAR 4.804 and 42.708.

7.7 CONCLUSION

Acquisition today is broadly scoped to incorporate key management functions such as program planning, budgeting, and setting and achieving program goals. As a result, there is a new and exciting business focus on acquisition that places an important emphasis on performance. Acquisition is now viewed not just as contracting, but as an investment toward the advancement of an agency's mission and programs.

As this guide demonstrates, the connective strategy for acquisition today is *performance*—from the earliest planning phase, when needed mission and program improvements are identified, to contract implementation and closeout, when the degree of achievement of planned improvements is assessed. Acquisition is a continuous cycle of planning, performance, measurement, and improvement.

APPENDIX A: DEFINITIONS

Note: Unless otherwise noted, definitions in this appendix are taken from or based on definitions in the FAR.

ACQUISITION— The acquiring by contract with appropriated funds supplies or services (including construction) by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated. Acquisition begins at the point when agency needs are established and includes the description of requirements to satisfy agency needs, solicitation and selection of sources, award of contracts, contract financing, contract performance, contract administration, and those technical and management functions directly related to the process of fulfilling agency needs by contract.

ACQUISITION PLANNING—The process by which the efforts of all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the agency need in a timely manner and at a reasonable cost. It includes developing the overall strategy for managing the acquisition.

BEST VALUE—The expected outcome of an acquisition that, in the Government's estimation, provides the greatest overall benefit in response to the requirement.

CAPITAL ASSETS—Land, structures, equipment, and intellectual property (e.g., software) that are used by the Federal Government and have an estimated useful life of two years or more. Capital assets exclude items acquired for resale in the ordinary course of operations or held for the purpose of physical consumption, such as operating materials and supplies. The cost of a capital asset includes both its purchase price and all other costs incurred to bring it to a form and location suitable for its intended use. Capital assets may be acquired in different ways: through purchase, construction, or manufacture; through a lease-purchase or other capital lease, regardless of whether title has passed to the Federal Government; through an operating lease for an asset with an estimated useful life of two years or more; or through exchange. Capital assets do not include intangible assets, such as the knowledge resulting from research and development or the human capital resulting from education and training; however, capital assets do include land, structures, equipment, and intellectual property (e.g., software) that the Federal Government uses in research and development and education and training. [Note: OMB Circular A-11 provides more complete definition of this item.]

COMMERCIAL ITEM—The FAR defines a commercial item as follows.

- (a) Any item, other than real property, that is of a type customarily used for nongovernmental purposes and that—
 - (1) Has been sold, leased, or licensed to the general public; or
 - (2) Has been offered for sale, lease, or license to the general public;
- (b) Any item that evolved from an item described in paragraph (a) of this definition through advances in technology or performance and that is not yet available in the commercial

- marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;
- (c) Any item that would satisfy a criterion expressed in paragraphs (a) or (b) of this definition, but for—
 - (1) Modifications of a type customarily available in the commercial marketplace; or
 - (2) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. Minor modifications means modifications that do not significantly alter the nongovernmental function or essential physical characteristics of an item or component or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;
- (d) Any combination of items meeting the requirements of paragraphs (a), (b), (c), or (e) of this definition that are of a type customarily combined and sold in combination to the general public;
- (e) Installation services, maintenance services, repair services, training services, and other services if such services are procured for support of an item referred to in paragraphs (a), (b), (c), or (d) of this definition, and if the source of such services—
 - (1) Offers such services to the general public and the Federal Government contemporaneously and under similar terms and conditions; and
 - (2) Offers to use the same work force for providing the Federal Government with such services as the source uses for providing such services to the general public;
- (f) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. This provision does not include services that are sold based on hourly rates without an established catalog or market price for a specific service performed;
- (g) Any item, combination of items, or service referred to in paragraphs (a) through (f), notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a contractor; or
- (h) A nondevelopmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple state and local governments.

CONTRACT—A mutually binding legal relationship obligating the seller to furnish the specified supplies or services (including construction) and the buyer to pay for them. It includes all types of commitments that obligate the Government to an expenditure of appropriated funds and that, except as otherwise authorized, are in writing. In addition to bilateral instruments, contracts include (but are not limited to) awards and notices of awards; job orders or task letters issued under basic ordering agreements; letter contracts; orders, such as purchase orders, under which the contract becomes effective by written acceptance or performance; and bilateral contract modifi-

cations. Contracts do not include grants and cooperative agreements covered by 31 U.S.C. 6301, et seq.

CONTRACT ADMINISTRATION OFFICE—A Contract Administration Office is an office that performs—

- (a) Assigned post-award functions related to the administration of contracts; and
- (b) Assigned pre-award functions.

CONTRACTING—Purchasing, renting, leasing, or otherwise obtaining supplies or services from nonfederal sources. Contracting includes description (but not determination) of supplies and services required, selection and solicitation of sources, preparation and award of contracts, and all phases of contract administration. It does not include making grants or cooperative agreements.

CONTRACTING OFFICE—An office that awards or executes a contract for supplies or services and performs post-award functions not assigned to a contract administration office.

CONTRACTING OFFICER—A person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the contracting officer acting within the limits of their authority as delegated by the contracting officer. "Administrative contracting officer (ACO)" refers to a contracting officer who is administering contracts. "Termination contracting officer (TCO)" refers to a contracting officer who is settling terminated contracts. A single contracting officer may be responsible for duties in any or all of these areas. Reference in this regulation to administrative contracting officer or termination contracting officer does not—

- (a) Require that a duty be performed at a particular office or activity; or
- (b) Restrict in any way a contracting officer in the performance of any duty properly assigned.

DELIVERY ORDER—An order for supplies placed against an established contract or with Government sources.

FACNET (for Federal Acquisition Computer Network)—is a Governmentwide system that provides universal user access, employs nationally and internationally recognized data formats, and allows the electronic data interchange of acquisition information between the private sector and the Federal Government. FACNET qualifies as the single, Governmentwide point of entry pending designation by the Administration of Office of Federal Procurement Policy (OFPP).

GOVERNMENTWIDE AGENCY CONTRACTS—Multiple-award or, less commonly due to FASA preferences, single-award task order contracts that provide for agencies (requesting agencies) needing information technology services to obtain them from another federal agency (servicing agency) that has entered into a contract (a) prior to August 7, 1996, under a delegation of procurement authority issued by the General Services Administration (GSA) under authority granted to it by the Brooks Act, 40 U.S.C. 759, or (b) after being designated as an executive agent for such by the Office of Management and Budget (or otherwise covered by such designation) pursuant to section 5112(e) of the Clinger-Cohen Act, 40 U.S.C. 1412(e). GWACs are subject to applicable Executive branch policies and procedures. However, they are not subject to the requirements and limitations of the Economy Act. [Definition is based on OMB's definition

in the "Multiagency/GWAC Program Managers Compact" located at http://www.arnet.gov/References/magycom.html.]

INFORMATION TECHNOLOGY—The Information Technology Management Reform Act (ITMRA) of 1996 defines information technology as follows:

- (a) The term "information technology," with respect to an executive agency means any equipment or inter-connected system or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by the executive agency. For purposes of the preceding sentence, equipment is used by an executive agency if the equipment is used by an executive agency directly or is used by a contractor under a contract with the executive agency which (i) requires the use of such equipment, or (ii) requires the use, to a significant extent, of such equipment in the performance of a service or the furnishing of a product.
- (b) The term "information technology" includes computers, ancillary equipment, software, firmware and similar procedures, services (including support services), and related resources.
- (c) Notwithstanding subparagraphs (A) and (B), the term 'information technology' does not include any equipment that is acquired by a Federal contractor incidental to a Federal contract.'

INHERENTLY GOVERNMENTAL FUNCTION—The Federal Activities Inventory Program Act defines an inherently government function as follows:

- (a) **DEFINITION**—The term 'inherently governmental function' means a function that is so intimately related to the public interest as to require performance by Federal Government employees.
- (b) **FUNCTIONS INCLUDED**—The term includes activities that require either the exercise of discretion in applying Federal Government authority or the making of value judgments in making decisions for the Federal Government, including judgments relating to monetary transactions and entitlements. An inherently governmental function involves, among other things, the interpretation and execution of the laws of the United States so as—
 - (i) to bind the United States to take or not to take some action by contract, policy, regulation, authorization, order, or otherwise;
 - (ii) to determine, protect, and advance United States economic, political, territorial, property, or other interests by military or diplomatic action, civil or criminal judicial proceedings, contract management, or otherwise;
 - (iii)to significantly affect the life, liberty, or property of private persons;
 - (iv)to commission, appoint, direct, or control officers or employees of the United States; or
 - (v) to exert ultimate control over the acquisition, use, or disposition of the property, real or personal, tangible or intangible, of the United States, including the collection, control, or disbursement of appropriated and other Federal funds.
- (c) **FUNCTIONS EXCLUDED**—The term does not normally include—

- (i) gathering information for or providing advice, opinions, recommendations, or ideas to Federal Government officials; or
- (ii) any function that is primarily ministerial and internal in nature (such as building security, mail operations, operation of cafeterias, housekeeping, facilities operations and maintenance, warehouse operations, motor vehicle fleet management operations, or other routine electrical or mechanical services).

MAJOR ACQUISITIONS—Those acquisitions requiring special management attention because of their importance to the agency mission; high development, operating, or maintenance costs; high risk; high return; or their significant role in the administration of agency programs, finances, property, or other resources.

MARKET RESEARCH—Collecting and analyzing information about capabilities within the market to satisfy agency needs.

MICRO-PURCHASE—An acquisition of supplies or services (except construction), the aggregate amount of which does not exceed \$2,500, except that in the case of construction, the limit is \$2,000.

MICRO-PURCHASE THRESHOLD—The dollar limit for micro purchases, currently \$2,500.

MULTIAGENCY CONTRACTS—are multiple-award (or, less commonly, due to FASA preferences, single-award) task order contracts that provide for agencies (requesting agencies) needing services, including but not limited to information technology services, to obtain them from another federal agency (servicing agency) that also has a need for such services and has awarded, or will be awarding, a contract for such services. Multiagency contracts are subject to the requirements and limitations of the Economy Act (except where more specific statutory authority exists) and applicable Executive branch policies and procedures, including, for information technology services, OMB Memorandum M-97-07 dated February 26, 1997. [Definition is based on OMB's definition in the "Multiagency/GWAC Program Managers Compact" located at http://www.arnet.gov/References/magycom.html.]

NONDEVELOPMENTAL ITEM—A nondevelopmental item is defined as follows:

- (a) Any previously developed item of supply used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;
- (b) Any item described in paragraph (a) of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or
- (c) Any item of supply being produced that does not meet the requirements of paragraphs (a) or (b) solely because the item is not yet in use.

OFFER—A response to a solicitation that, if accepted, would bind the offeror to perform the resultant contract. Responses to invitations for bids (sealed bidding) are offers called "bids" or "sealed bids;" responses to requests for proposals (negotiation) are offers called "proposals;" responses to requests for quotations (negotiation) are not offers and are called "quotes."

OUTSOURCING—The process of contracting with an external source to obtain goods or services that are currently being provided by government employees. Notwithstanding this service

delivery approach, the government retains overall responsibility for the quality, timeliness and accuracy of the outsourced activities.

PRIVATIZING—The process of taking an established function performed by Government employees, often utilizing government facilities, and transforming it into a private sector enterprise over which the Government no longer has control. With privatization, the Government no longer has responsibility for the quality, timeliness, and accuracy of the privatized activities.

PROCUREMENT—Some differentiate the terms "acquisition" and "procurement," viewing acquisition as from planning to disposal and viewing procurement as contracting. (In other words, procurement is part of acquisition.) The terms acquisition and procurement are used interchangeably in this life-cycle guide.

RAINES' RULES—These rules establish that investments in major information systems proposed for funding the President's budget should:

- 1. Support core/priority mission functions that need to be performed by the Federal Government;
- 2. Be undertaken by the requesting agency because no alternative private sector or governmental source can support the function more efficiently;
- 3. Support work processes that have been simplified or otherwise redesigned to reduce costs, improve effectiveness, and make maximum use of commercial, off-the-shelf technology;
- 4. Demonstrate a projected return on the investment that is clearly equal to or better than alternative uses of available public resources. Return may include: improved mission performance in accordance with measures developed pursuant to the Government Performance and Results Act; reduced cost; increased quality, speed, or flexibility; and increased customer and employee satisfaction. Return should be adjusted for such risk factors as the project's technical complexity, the agency's management capacity, the likelihood of cost overruns, and the consequences of under- or non-performance.
- 5. For information technology investments, be consistent with Federal, agency, and bureau information architectures which: integrate agency work processes and information flows with technology to achieve the agency's strategic goals; reflect the agency's technology vision and year 2000 compliance plan; and specify standards that enable information exchange and resource sharing, while retaining flexibility in the choice of suppliers and in the design of local work processes;
- 6. Reduce risk by: avoiding or isolating custom-designed components to minimize the potential adverse consequences on the overall project; using fully tested pilots, simulations, or prototype implementations when necessary before going to production; establishing clear measures and accountability for project progress; and, securing substantial involvement and buy-in throughout the project from the program officials who will use the system;
- 7. Be implemented in phased, successive segments as narrow in scope and brief in duration as practicable, each of which solves a specific part of an overall mission problem and delivers a measurable net benefit independent of future segments, unless it can be demonstrated that there are significant economies of scale at acceptable risk from funding more

- than one segment or there are multiple units that need to be acquired at the same time; and
- 8. Employ an acquisition strategy that appropriately allocates risk between the Government and the contractor, effectively uses competition, ties contract payments to accomplishments, and takes maximum advantage of commercial technology."

SIMPLIFIED ACQUISITION PROCEDURES—The methods prescribed in Part 13 for making purchases of supplies or services.

SIMPLIFIED ACQUISITION THRESHOLD—Currently \$100,000, except that in the case of any contract to be awarded and performed, or purchase to be made, outside the United States in support of a contingency operation (as defined in 10 U.S.C. 101(a)(13)) or a humanitarian or peacekeeping operation (as defined in 10 U.S.C. 2302(7) and 41 U.S.C. 259(d)), the term means \$200.000.

THREE PESKY QUESTIONS—The three criteria established by ITMRA that agencies must address before acquisitions are funded. These questions address the first three of Raines' Rules and are as follows:

- 1. Does the proposed investment in a major information system support core/priority mission functions that need to be performed by the Federal Government?
- 2. Should the proposed investment in a major information system be undertaken by the requesting agency because no alternative private sector or governmental source can support the function more efficiently?
- 3. Does the proposed investment in a major information system support work processes that have been simplified or otherwise redesigned to reduce costs, improve effectiveness, and make maximum use of commercial, off-the-shelf technology?